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LOGINID: ssptacrs1614

PASSWORD:

NEWS HOURS

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                     Welcome to STN International
NEWS
                 Web Page for STN Seminar Schedule - N. America
NEWS
         AUG 06
                 CAS REGISTRY enhanced with new experimental property tags
NEWS
      3
         AUG 06
                 FSTA enhanced with new thesaurus edition
NEWS
         AUG 13
                 CA/CAplus enhanced with additional kind codes for granted
                 patents
NEWS
         AUG 20
                 CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS
         AUG 27
                 Full-text patent databases enhanced with predefined
                 patent family display formats from INPADOCDB
NEWS
         AUG 27
                 USPATOLD now available on STN
                 CAS REGISTRY enhanced with additional experimental
NEWS
         AUG 28
                 spectral property data
NEWS
         SEP 07
                 STN AnaVist, Version 2.0, now available with Derwent
                 World Patents Index
         SEP 13
NEWS 10
                 FORIS renamed to SOFIS
NEWS 11
         SEP 13
                 INPADOCDB enhanced with monthly SDI frequency
NEWS 12
         SEP 17
                 CA/CAplus enhanced with printed CA page images from
                 1967-1998
NEWS 13
         SEP 17
                 CAplus coverage extended to include traditional medicine
                 patents
NEWS 14 SEP 24
                 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 15 OCT 02
                 CA/CAplus enhanced with pre-1907 records from Chemisches
                 Zentralblatt
NEWS 16 OCT 19
                 BEILSTEIN updated with new compounds
NEWS 17 NOV 15 Derwent Indian patent publication number format enhanced
NEWS 18 NOV 19 WPIX enhanced with XML display format
NEWS 19 NOV 30 ICSD reloaded with enhancements
NEWS 20 DEC 04 LINPADOCDB now available on STN
NEWS 21 DEC 14 BEILSTEIN pricing structure to change
NEWS 22 DEC 17 USPATOLD added to additional database clusters
NEWS 23
         DEC 17
                 IMSDRUGCONF removed from database clusters and STN
NEWS 24 DEC 17
                 DGENE now includes more than 10 million sequences
NEWS 25
         DEC 17
                 TOXCENTER enhanced with 2008 MeSH vocabulary in
                 MEDLINE segment
         DEC 17
NEWS 26
                 MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS 27
         DEC 17
                 CA/CAplus enhanced with new custom IPC display formats
NEWS 28
         DEC 17
                 STN Viewer enhanced with full-text patent content
                 from USPATOLD
NEWS 29
         JAN 02
                 STN pricing information for 2008 now available
NEWS 30
         JAN 16
                 CAS patent coverage enhanced to include exemplified
                 prophetic substances
NEWS EXPRESS
              19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2,
              CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.
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=> file registry
COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
0.21 0.21

FULL ESTIMATED COST

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=> file caplus COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
5.61 5.82

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 12:47:08 ON 23 JAN 2008
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http://www.cas.org/infopolicy.html

=> s l1 and (hypertension or blood pressure)
<----User Break---->

SEARCH ENDED BY USER

=> s 11

L2 438 L1

=> s 12 and (hypertension or blood pressure)

92325 HYPERTENSION 106 HYPERTENSIONS 92346 HYPERTENSION

(HYPERTENSION OR HYPERTENSIONS)

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SEARCH ENDED BY USER

=> s 12 and hypertension

92325 HYPERTENSION 106 HYPERTENSIONS 92346 HYPERTENSION

(HYPERTENSION OR HYPERTENSIONS)

L3 70 L2 AND HYPERTENSION

=> s 13 and portal

18470 PORTAL 380 PORTALS 18765 PORTAL

(PORTAL OR PORTALS)

L4 4 L3 AND PORTAL

=> d 14 ibib abs 1-4

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1123280 CAPLUS

DOCUMENT NUMBER: 145:449221

TITLE: Roflumilast and roflumilast N-oxide for the treatment

of pulmonary hypertension, and combinations

with phosphodiesterase 5 inhibitors

INVENTOR(S): Beume, Rolf; Hatzelmann, Armin; Marx, Degenhard;

Schudt, Christian; Tenor, Hermann; Eddahibi, Saadia;

Adnot, Serge

PATENT ASSIGNEE(S): Altana Pharma AG, Germany SOURCE: PCT Int. Appl., 40pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

F	PAT					KIN	D	DATE	APPLICATION NO.						D	ATE			
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			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,	
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	ΚM,	KN,	KP,	KR,	
			KΖ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	
			MZ,	NA,	NG,	ΝI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	
			SG,	SK,	SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	
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		RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	IE,	
			IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	
			CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,	
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			KG,	KΖ,	MD,	RU,	ΤJ,	TM		•	·			·					
P	U	2006	2373	00		A1		2006	1026		AU 2	006-	2373	00		2	0060	412	
C	CA	2604	295			A1		2006	1026	1	CA 2	2006-	2604	295		2	0060	412	
E	ΞP	1874	309			A1		2008	0109		EP 2	006-	7257.	34		2	0060	412	
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I	Ν	2007	MN01	889		A		2007	1207		IN 2	2007-	MN18	89		2	0071	112	
K	ΚR	2008	0029	50		A		2008	0104		KR 2	2007-	7262	82		2	0071	112	
IORI	ТҮ	APP:	LN.	INFO	.:		20000101			EP 2005-103147									
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3 Т	¹h∈	inv	ent i	on d	iscl	oses	the	1150	of ·	rofl	ıımi 1	ast.	rof	lumi	last.	-N-O	xide	- or	

AB The invention discloses the use of roflumilast, roflumilast-N-Oxide, or a pharmaceutically acceptable salt of either for the treatment of pulmonary hypertension. The invention addnl. discloses the use of roflumilast, roflumilast-N-oxide or a pharmaceutically acceptable salt of either in combination with a phosphodiesterase 5 inhibitor, or a pharmaceutically acceptable salt thereof, for the treatment of pulmonary hypertension.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:149404 CAPLUS

DOCUMENT NUMBER: 144:205821

TITLE: 2-Phenyl-substituted imidazotriazinone derivative phosphodiesterase 5 inhibitors for the treatment of

symptoms treatable by increasing cGMP levels

INVENTOR(S):
Haning, Helmut

PATENT ASSIGNEE(S): Bayer Healthcare A.-G., Germany

SOURCE: PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	TENT	NO.			KIN	D :	DATE			APPL	ICAT		DATE					
						_												
WO	2006	0157	15		A1		2006	0216	,	wo 2	005-	EP80	57		20050723			
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               IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
               CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
               GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
               KG, KZ, MD, RU, TJ, TM
                          A1
      DE 102004038328
                                     20060316
                                                 DE 2004-102004038328
                                                                                20040806
                                     20060216 AU 2005-270446 20050723
      AU 2005270446
                             A1
                                      20060216 CA 2005-2575907
20070425 EP 2005-764196
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                             A1
                                                                               20050723
      EP 1776120
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      CN 101035539 A 20070912 CN 2005-80034023
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      IN 2007DN01126
                             Α
                                     20070427 IN 2007-DN1126
                                                                               20070212
     KR 2007041613
NO 2007001231
US 2007299088
                             A 20070418 KR 2007-705245
A 20070503 NO 2007-1231
A1 20071227 US 2007-659624
                                                                               20070305
                                                                               20070306
                                                    US 2007-659624
      US 2007299088
                                                                                20070905
PRIORITY APPLN. INFO.:
                                                    DE 2004-102004038328A 20040806
                                                    WO 2005-EP8057 W 20050723
                        MARPAT 144:205821
OTHER SOURCE(S):
      The invention relates to the use of PDE 5 inhibitors, and especially of known
      2-phenyl-substituted imidazotriazinone derivs., for producing medicaments
      for the treatment of symptoms that can be treated by increasing cGMP
      levels in certain tissues, e.g. acute myocardial infarction and damage
      caused by reperfusion, various symptoms in the female and male
      reproductive system and urogenital tract, gastrointestinal diseases,
      damage caused by diabetes, and liver failure.
                                    THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                             11
                                     RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:1080763 CAPLUS
                             142:16820
DOCUMENT NUMBER:
TITLE:
                             Use of a phosphodiesterase V inhibitor for the
                             prophylaxis and/or treatment of portal
                             hypertension
INVENTOR(S):
                             Kreisel, Wolfgang
PATENT ASSIGNEE(S):
                             Universitatsklinikum Freiburg, Germany
SOURCE:
                             PCT Int. Appl., 32 pp.
                             CODEN: PIXXD2
DOCUMENT TYPE:
                             Patent
LANGUAGE:
                             German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
      PATENT NO.
                      KIND DATE APPLICATION NO. DATE
                                     _____
                                                   _____
                             ____
      _____
                                                                               _____
      WO 2004108062 A2 20041216
WO 2004108062 A3 20050310
                                                   WO 2004-EP6014
                                                                                20040603
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK
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SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,

DE 2003-10325813

20030606

20050105

SN, TD, TG

DE 10325813

A1

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DE 10325813
                   B4 20071220
    EP 1635838
                    A2 20060322 EP 2004-739573
B1 20070502
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                A 20061129 CN 2004-80022512
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                                                         20040603
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    JP 2006527177
                          20061130 JP 2006-508268
                                                        20040603
    AT 361074
                     Τ
                         20070515 AT 2004-739573
                                                        20040603
    ES 2287740
                     T3 20071216 ES 2004-4739573
                                                        20040603
    US 2007004744
                    A1 20070104 US 2006-559694
                                                        20060501
PRIORITY APPLN. INFO.:
                                     DE 2003-10325813 A 20030606
                                     WO 2004-EP6014 W 20040603
```

AB The invention discloses a medicament for the prophylaxis and/or treatment of diseases or complications associated with portal hypertension, especially hemorrhagic complications. The invention uses a phosphodiesterase V inhibitor, e.g. sildenafil.

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:590998 CAPLUS

DOCUMENT NUMBER: 139:128037

TITLE: Use of acetylcholine esterase antagonists to treat

insulin resistance

INVENTOR(S):

PATENT ASSIGNEE(S):

SOURCE:

Lautt, Wayne W.

Diamedica Inc., Can.
PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	TENT	NO.			KIN:	D	DATE 			APPL	ICAT	ION 1	7O.		D.	ATE	
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		ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	ΤG	
US	2003	2356	09		A1		2003	1225		US 2	003-	3504	78		2	0030	124
CA	. 2514	880			A1		2003	0731	1	CA 2	003-	2514	880		2	0030	127
EP	1471	905			A1		2004	1103		EP 2	003-	7002	75		2	0030	127
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JP	2005	5199	06		T		2005	0707		JP 2	003-	5615	92		2	0030	127
US	2005	0492	93		A1 20050303			0303		US 2	004-	5020	66		20041027		
PRIORIT	ORITY APPLN. INFO.:							US 2002-350958P						P 2	0020	125	
								WO 2003-CA78					1	W 20030127			
									-								

AB A method is provided for reducing insulin resistance in a mammalian subject, comprising administering a suitable acetylcholine esterase antagonist.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

FULL ESTIMATED COST ENTRY SESSION 19.24 25.06

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION

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=> s ("pde 5" or "pde-5" or phosphdiesterase type 5 or phosphodiesterase five or "phosphodiesterase-5 or vardenafil) and (hypertension or blood pressure) MISMATCHED QUOTE 'OR "PHOSPHODIE' Quotation marks (or apostrophes) must be used in pairs, one before and one after the expression you are setting off or masking.

=> s ("pde 5" or "pde-5" or phosphdiesterase type 5 or phosphodiesterase five or
"phosphodiesterase-5" or vardenafil) and (hypertension or blood pressure)
 1 FILES SEARCHED...

L5 1365 ("PDE 5" OR "PDE-5" OR PHOSPHDIESTERASE TYPE 5 OR PHOSPHODIESTER ASE FIVE OR "PHOSPHODIESTERASE-5" OR VARDENAFIL) AND (HYPERTENSI ON OR BLOOD PRESSURE)

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L5 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system. For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> s 15 and portal

L6 40 L5 AND PORTAL

=> s 16 and py<=2004
2 FILES SEARCHED...</pre>

L7 10 L6 AND PY<=2004

=> duplicate rem

ENTER L# LIST OR (END):17

DUPLICATE PREFERENCE IS 'CAPLUS, BIOSIS, EMBASE' KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

PROCESSING COMPLETED FOR L7

L8 10 DUPLICATE REM L7 (0 DUPLICATES REMOVED)

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L8 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1080763 CAPLUS

DOCUMENT NUMBER: 142:16820

TITLE: Use of a phosphodiesterase V inhibitor for the

prophylaxis and/or treatment of portal

hypertension

INVENTOR(S): Kreisel, Wolfgang

PATENT ASSIGNEE(S): Universitatsklinikum Freiburg, Germany

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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		20041														2	0040	603	<
		₩:	AE, CN, GE, LK, NO, TJ,	AG, CO, GH, LR, NZ, TM,	AL, CR, GM, LS, OM, TN,	AM, CU, HR, LT, PG, TR,	AT, CZ, HU, LU, PH, TT,	AU, DE, ID, LV, PL, TZ,	AZ, DK, IL, MA, PT, UA, MZ,	BA, DM, IN, MD, RO, UG,	DZ, IS, MG, RU, US,	EC, JP, MK, SC, UZ,	EE, KE, MN, SD, VC,	EG, KG, MW, SE, VN,	ES, KP, MX, SG, YU,	FI, KR, MZ, SK, ZA,	GB, KZ, NA, SL, ZM,	GD, LC, NI, SY, ZW	
			AZ, EE, SI,	BY, ES,	KG, FI, TR,	KZ, FR,	MD, GB,	RU, GR,	TJ, HU, CG,	TM,	AT,	BE, LU,	BG, MC,	CH, NL,	CY, PL,	CZ, PT,	DE, RO,	DK, SE,	
		10325 10325							0105 1220		DE 2	003-	1032	5813		2	0030	606	
		16358 16358							0322 0502		EP 2	004-	7395	73		2	0040	603	
J A	JP AT ES JS	18710 2006! 3610 2287 20070	IE, 010 5271 74 740 0047	SI, 77	FI,	RO, A T T T3	CY,	TR, 2006 2006 2007 2007	0515	CZ,	EE, CN 2 JP 2 AT 2 ES 2 US 2 DE 2	HU, 004- 006- 004- 004-	PL, 8002. 5082. 7395 4739. 5596.	SK 2512 68 73 573 94 5813		2) 2) 2) 2) A 2)	0040 0040 0040 0040 0060 0060	603 603 603 603 501 606	
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AB The invention discloses a medicament for the prophylaxis and/or treatment of diseases or complications associated with portal hypertension, especially hemorrhagic complications. The invention uses a phosphodiesterase V inhibitor, e.g. sildenafil.

L8 ANSWER 2 OF 10 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2004526367 EMBASE

TITLE: Pulmonary arterial hypertension: Newer treatment

are improving outcomes.

AUTHOR: Sirithanakul K.; Mubarak K.K.

CORPORATE SOURCE: Dr. K.K. Mubarak, Wayne State University, 3990 John R, 3937

Hudson, Detroit, MI 48201, United States. mubarak@wayne.edu Journal of Family Practice, (Dec 2004) Vol. 53, No. 12, pp.

959-969.

SOURCE:

Refs: 59

ISSN: 0094-3509 CODEN: JFAPDE

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis

O30 Clinical and Experimental Pharmacology O36 Health Policy, Economics and Management

037 Drug Literature Index 038 Adverse Reactions Titles

LANGUAGE: English

ENTRY DATE: Entered STN: 30 Dec 2004

Last Updated on STN: 30 Dec 2004

L8 ANSWER 3 OF 10 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights

reserved on STN

ACCESSION NUMBER: 2005064723 EMBASE

TITLE: Gateways to clinical trials: December 2004.

AUTHOR: Bayes M.; Rabasseda X.; Prous J.R.

CORPORATE SOURCE: M. Bayes, Prous Science, P.O. Box 540, 08080 Barcelona,

Spain. mbayes@prous.com

SOURCE: Methods and Findings in Experimental and Clinical

Pharmacology, (Dec 2004) Vol. 26, No. 10, pp. 801-827.

Refs: 163

ISSN: 0379-0355 CODEN: MFEPDX

COUNTRY: Spain

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology

030 Clinical and Experimental Pharmacology

037 Drug Literature Index 038 Adverse Reactions Titles

006 Internal Medicine

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 24 Feb 2005

Last Updated on STN: 24 Feb 2005

Gateways to Clinical Trials is a guide to the most recent clinical trials in current literature and congresses. The data in the following tables has been retrieved from the Clinical Studies Knowledge Area of Prous Science Integrity®, the drug discovery and development portal , http://integrity.prous.com. This issue focuses on the following selection of drugs: Abetimus sodium, ademetionine, agalsidase alfa, agalsidase beta, alemtuzumab, alfimeprase, AMG-162, androgel, anidulafungin, antigastrin therapeutic vaccine, aripiprazole, atomoxetine hydrochloride; Bazedoxifene acetate, bevacizumab, bosentan; Caldaret hydrate, canfosfamide hydrochloride, choriogonadotropin alfa, ciclesonide, combretastatin A-4 phosphate, CY-2301; Darbepoetin alfa, darifenacin hydrobromide, decitabine, degarelix acetate, duloxetine hydrochloride; ED-71, enclomiphene citrate, eplerenone, epratuzumab, escitalopram oxalate, eszopiclone, ezetimibe; Fingolimod hydrochloride, FP-1096; HMR-3339A, HSV-TK/GCV gene therapy, human insulin, HuOKT3gamma1(Ala234-Ala235); Idursulfase, imatinib mesylate, indiplon, InnoVax C insulin glargine, insulin glulisine, irofulven; Labetuzumab, lacosamide, lanthanum carbonate, LyphoDerm, Lyprinol; Magnesium sulfate, metelimumab, methylphenidate hydrochloride; Natalizumab, NO-aspirin; OROS(R); PC-515, pegaptanib sodium, peginterferon alfa-2a, peginterferon alfa-2b, peginterferon alfa-2b/ribavirin, pemetrexed disodium, peptide YY3-36, posaconazole, pregabalin, PT-141, pyridoxamine; R-744, ramelteon, ranelic acid distrontium salt, rebimastat, repinotan hydrochloride, rhC1, rhGAD65, rosiglitazone maleate/metformin hydrochloride; Sardomozide, solifenacin succinate; Tadalafil, taxus, telavancin, telithromycin, tenofovir disoproxilfumarate, teriparatide, testosterone transdermal patch, tetomilast, tirapazamine, torcetrapib; Valspodar, vardenafil hydrochloride hydrate, vildagliptin; Yttrium Y90 epratuzumab; Ziprasidone hydrochloride. .COPYRGT. 2004 Prous Science. All rights reserved.

L8 ANSWER 4 OF 10 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2005024582 EMBASE

TITLE: Gateways to Clinical Trials.

AUTHOR: Bayes M.; Rabasseda X.; Prous J.R.

CORPORATE SOURCE: M. Bayes, Prous Science, S.A., P.O. Box 540, 08080

Barcelona, Spain. mbayes@prous.com

SOURCE: Methods and Findings in Experimental and Clinical

Pharmacology, (Nov 2004) Vol. 26, No. 9, pp. 723-753.

Refs: 195

ISSN: 0379-0355 CODEN: MFEPDX

COUNTRY: Spain

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 016 Cancer

037 Drug Literature Index038 Adverse Reactions Titles

004 Microbiology: Bacteriology, Mycology, Parasitology

and Virology

006 Internal Medicine

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 27 Jan 2005

Last Updated on STN: 6 Sep 2007

Gateways to Clinical Trials is a guide to the most recent clinical trials AB in current literature and congresses. The data in the following tables has been retrieved from the Clinical Trials Knowledge Area of Prous Science Integrity(R), the drug discovery and development portal, http://integrity.prous.com. This issue focuses on the following selection of drugs: (PE) HRG214, 1E10, 21-Aminoepothilone B; Ad.Egr.TNF.11D, Ad110-B7.1/HLA, adalimumab, adefovir dipivoxil, alefacept, alemtuzumab, AMD-070, anhydrovinblastine, aripiprazole, asimadoline, atrasentan, AVE-5883; Bimatoprost, BNP-7787, bosentan, botulinum toxin type B, BR-1; Canfosfamide hydrochloride, ciclesonide, curcumin, cypher; D0401, darbepoetin alfa, darifenacin hydrobromide, D-D4FC, dendritic cell-based vaccine, desloratadine, dextrin sulfate, dolastatin 10, drospirenone drospirenone/estradiol, DS-992, duloxetine hydrochloride, dutasteride; E-7010, efalizumab, eletriptan, EM-1421, enfuvirtide, entecavir, etoricoxib, everolimus, exenatide, ezetimibe; Favid, fidarestat, fingolimod hydrochloride, FK-352; Gefitinib, gemifloxacin mesilate, gepirone hydrochloride, gimatecan; HE-2000; Imatinib mesylate, indisulam, insulin detemir, irofulven, ISIS-5132; Lapatinib, levocetirizine, liraglutide, lumiracoxib; Metformin/Glyburide, methionine enkephalin, MK-0431, morphine hydrochloride, motexafin gadolinium, mycobacterium cell wall complex; Naturasone, neridronic acid, nesiritide; Oblimersen sodium, olanzapine/fluoxetine hydrochloride, omalizumab, oral insulin; Paclitaxel poliglumex, PC-515, PEG-filgrastim, peginterferon alfa-2a, peginterferon alfa-2b, peginterferon alfa-2b/ribavirin, pegvisomant, pexelizumab, picoplatin, pramlintide acetate, prasterone, pregabalin; Quercetin; Ramelteon, ranirestat, RG228, rhGAD65, roflumilast, rubitecan; Sitaxsentan sodium, solifenacin succinate; Tadalafil, taxus, tipifarnib, tolevamer sodium, topixantrone hydrochloride; Valganciclovir hydrochloride, vardenafil hydrochloride hydrate, vildagliptin, voriconazole; XTL-001; Zoledronic acid monohydrate. .COPYRGT. 2004 Prous Science. All rights reserved.

L8 ANSWER 5 OF 10 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2004349672 EMBASE

TITLE: Gateways to Clinical Trials: July/August 2004.

AUTHOR: Bayes M.; Rabasseda X.; Prous J.R.

CORPORATE SOURCE: M. Bayes, Prous Science, S.A., P.O. Box 540, 08080

Barcelona, Spain. mbayes@prous.com

SOURCE: Methods and Findings in Experimental and Clinical

Pharmacology, (Jul 2004) Vol. 26, No. 6, pp. 473-503.

Refs: 194

ISSN: 0379-0355 CODEN: MFEPDX

COUNTRY: Spain

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 030 Clinical and Experimental Pharmacology

0.37 Drug Literature Index

LANGUAGE: English SUMMARY LANGUAGE: English

Entered STN: 16 Sep 2004 ENTRY DATE:

Last Updated on STN: 16 Sep 2004

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ANSWER 6 OF 10 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:356876 BIOSIS DOCUMENT NUMBER: PREV200510148043

TITLE: Phosphodiesterase-5 (PDE-

5) is up-regulated in cirrhotic rat livers; Potential role for PDE-5 inhibitors in

reducing the increased intrahepatic vascular tone in

cirrhosis.

Loureiro-Silva, Mauricio [Reprint Author]; Iwakiri, Yasuko; AUTHOR(S):

Abraldes, Juan G.; Haq, Omar; Groszmann, Roberto J.

CORPORATE SOURCE:

Yale Univ, Sch Med, VAMC, New Haven, CT USA Hepatology, (OCT 2004) Vol. 40, No. 4, Suppl. 1, SOURCE:

pp. 271A.

Meeting Info.: 55th Annual Meeting of the

American-Association-for-the-Study-of-Liver-Diseases (AASLD). Boston, MA, USA. October 29 -November 02, 2004.

Amer Assoc Study Liver Dis. CODEN: HPTLD9. ISSN: 0270-9139.

DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 14 Sep 2005

Last Updated on STN: 14 Sep 2005

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ACCESSION NUMBER: 2004159928 EMBASE

TITLE: Gateways to Clinical Trials.

AUTHOR: Bayes M.; Rabasseda X.; Prous J.R.

CORPORATE SOURCE: M. Bayes, Prous Science, P.O. Box 540, 08080 Barcelona,

Spain. mbayes@prous.com

SOURCE: Methods and Findings in Experimental and Clinical

Pharmacology, (Mar 2004) Vol. 26, No. 2, pp. 129-161.

Refs: 229

ISSN: 0379-0355 CODEN: MFEPDX

COUNTRY: Spain

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 030 Clinical and Experimental Pharmacology

037 Drug Literature Index

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 13 May 2004

Last Updated on STN: 13 May 2004

AΒ Gateways to Clinical Trials is a guide to the most recent clinical trials in current literature and congresses. The data in the following tables has been retrieved from the Clinical Studies Knowledge Area of Prous Science Integrity(R), the drug discovery and development portal, http://integrity.prous.com. This issue focuses on the following selection of drugs: Activated protein C concentrate, Ad-CD154, Adeno-Interferon gamma, alemtuzumab, APC-8024, 9-aminocamptothecin, aprepitant, L-arginine hydrochloride, aripiprazole, arsenic trioxide, asimadoline; O6-Benzylguanine, bevacizumab, Bi-20, binodenoson, biphasic insulin aspart, bivatuzumab, 186Re-bivatuzumab, BMS-181176, bosentan, botulinum toxin type B, BQ-123, bryostatin 1; Carboxyamidotriazole, caspofungin acetate, CB-1954, CC-4047, CDP-860, cerivastatin sodium, clevidipine, CTL-102; 3,4-DAP, darbepoetin alfa, decitabine, desloratadine, DHA-paclitaxel, duloxetine hydrochloride; Efalizumab, EGF vaccine, eletriptan, eniluracil, ENMD-0997, eplerenone, eplivanserin, erlosamide, ertapenem sodium, escitalopram oxalate, esomeprazole magnesium, eszopiclone, everolimus, exatecan mesilate, exenatide, ezetimibe; Fondaparinux sodium, FR-901228, FTY-720; Gefitinib, gemtuzumab ozogamicin, gepirone hydrochloride; Hexyl insulin M2, human insulin; Imatinib mesylate, insulin detemir, insulin glargine, iodine (I131) tositumomab, ISV-205, ivabradine hydrochloride, ixabepilone; Levetiracetam, levocetirizine, linezolid, liposomal NDDP, lonafarnib, lopinavir, LY-156735; Mafosfamide cyclohexylamine salt, magnesium sulfate, maxacalcitol, meclinertant, melagatran, melatonin, MENT, mepolizumab, micafungin sodium, midostaurin, motexafin gadolinium; Nesiritide, NS-1209, NSC-601316, NSC-683864; Osanetant; Palonosetron hydrochloride, parecoxib sodium, pegaptanib sodium, peginterferon alfa-2a, peginterferon alfa-2b, pegylated OB protein, pemetrexed disodium, perillyl alcohol, picoplatin, pimecrolimus, pixantrone maleate, plevitrexed, polyglutamate paclitaxel, posurdex, pramlintide acetate, prasterone, pregabalin; Rasburicase, rimonabant hydrochloride, rostaporfin, rosuvastatin calcium; SDZ-SID-791, sibrotuzumab, sorafenib, SU-11248; Tadalafil, targinine, tegaserod maleate, telithromycin, TheraCIM, tigecycline, tiotropium bromide, tipifarnib, tirapazamine, treprostinil sodium; Valdecoxib, Valganciclovir hydrochloride, Vardenafil hydrochloride hydrate; Ximelagatran; Zofenopril calcium, Zoledronic acid monohydrate. .COPYRGT. 2004 Prous Science. All rights reserved.

L8 ANSWER 8 OF 10 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN ACCESSION NUMBER: 2004:286345 BIOSIS DOCUMENT NUMBER: PREV200400285102

TITLE: Role of phosphodiesterase-5 (PDE5) in

altered vascular reactivity in cirrhotic rats.

AUTHOR(S): Sabra, Ramzi [Reprint Author]; Tahseldar-Roumieh, Rima;

Ghali, Rana; Tumeh, Yara; El-Hajj, Ihab; Lugnier, Claire

CORPORATE SOURCE: Pharmacology, American University of Beirut, Bliss Strees,

Beirut, -, -, Lebanon rsabra@aub.edu.lb

SOURCE: FASEB Journal, (2004) Vol. 18, No. 4-5, pp. Abst.

643.9. http://www.fasebj.org/. e-file.

Meeting Info.: FASEB Meeting on Experimental Biology: Translating the Genome. Washington, District of Columbia,

USA. April 17-21, 2004. FASEB. ISSN: 0892-6638 (ISSN print).

DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 16 Jun 2004

Last Updated on STN: 16 Jun 2004

Previous studies showed increased PDE5 activity in kidneys of cirrhotic AΒ rats, which might explain the reduced response to natriuretic peptides and the Na retention observed in cirrhosis. We examined if changes in PDE5 can cause altered vascular reactivity in cirrhotic rats. Methods: Cirrhosis was induced by bile duct ligation and excision (BDL). Four weeks after BDL or sham operation (Sham), a concentration response curve fro nitroglycerine (NG) was obtained in endothelium denuded vascular rings from thoracic aortae precontracted with phenylephrine (PE). In some experiments, the rings were pre-incubated with 0.1muM DMPPO, a selective inhibitor of PDE5. In similar experiments, a concentration response curve was ontained for DMPPO. Expression of PDE5 was studied in aortas, kidneys and mesenteric vessels of BDL and Sham rats. Results: The NG curve was right-shifted in BDL rats; pre-incubation with DMPPO enhanced the vasodilator responses in all groups and eliminated the differences in sensitivity between Sham and BDL (see figure). Similarly, the DMPPO concnetration— response curve was right shifted in BDL rats. Expression of PDE5 protein was increased in the aorta and decreased in the mesenteric vasculature in BDL vs. Sham. Conclusions: In cirrhotic animals, the reduced sensitivity of the aortic rings to an NO donor may be explained by higher PDE5 activity in the aorta, leading to a less cGMP levels in response NO (NG). The attenuation of the vasodilator responses to DMPPO and the increased PDE5 expresion in the aorta of BDL rats supports this conclusion. These results may indicate an important role for changes in PDE5 activity in the hemodynamic changes that occur in cirrhosis and portal hypertension; the relation between PDE5 and vasodilation in the splanchnic bed is being explored. Supported by a grant from the Lebanese National Council for Scientific Research.. .

L8 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:590998 CAPLUS

DOCUMENT NUMBER: 139:128037

TITLE: Use of acetylcholine esterase antagonists to treat

insulin resistance

INVENTOR(S): Lautt, Wayne W.

PATENT ASSIGNEE(S): Diamedica Inc., Can.

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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                        A1 20030731 WO 2003-CA78
     WO 2003061648
                                                                   20030127 <--
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
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             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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                               20041103 EP 2003-700275
     EP 1471905
                         A1
                                                                  20030127 <--
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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                                          JP 2003-561592
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     US 2005049293
                                20050303
                                           US 2004-502066
                                                                   20041027
                         Α1
PRIORITY APPLN. INFO.:
                                           US 2002-350958P
                                                              P 20020125
                                                             W 20030127
                                            WO 2003-CA78
     A method is provided for reducing insulin resistance in a mammalian
     subject, comprising administering a suitable acetylcholine esterase
     antagonist.
REFERENCE COUNT:
                               THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L8
     ANSWER 10 OF 10 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights
     reserved on STN
ACCESSION NUMBER: 2003256920 EMBASE
                   Gateways to clinical trials: May 2003.
TITLE:
                   Bayes M.; Rabasseda X.; Prous J.R.
AUTHOR:
                   M. Bayes, Prous Science, S.A., P.O. Box 540, 08080
CORPORATE SOURCE:
                   Barcelona, Spain. mbayes@prous.com
                   Methods and Findings in Experimental and Clinical
SOURCE:
                   Pharmacology, (May 2003) Vol. 25, No. 4, pp. 317-340.
                   Refs: 143
                   ISSN: 0379-0355 CODEN: MFEPDX
COUNTRY:
                   Spain
                   Journal; Article
DOCUMENT TYPE:
FILE SEGMENT:
                   030
                           Clinical and Experimental Pharmacology
                   037
                            Drug Literature Index
LANGUAGE:
                   English
SUMMARY LANGUAGE: English
                   Entered STN: 17 Jul 2003
ENTRY DATE:
                    Last Updated on STN: 17 Jul 2003
     Gateways to Clinical Trials is a guide to the most recent clinical trials
AΒ
     in current literature and congresses. The data in the following tables
     has been retrieved from the Clinical Studies knowledge area of Prous
     Science Integrity®, the drug discovery and development portal
     , http://integrity.prous.com. This issue focuses on the following selection of drugs: 2F5, 2G12, Abetimus sodium, ABI-007, adalimumab,
     adefovir dipivoxil, AE-941, alefacept, altropane, aminolevulinic acid
     hydrochloride, aminolevulinic acid methyl ester, aminopterin, anakinra,
     aprinocarsen sodium, atazanavir, atlizumab, atomoxetine hydrochloride;
     B7-1 vaccine, bevacizumab, biricodar dicitrate, BMS-188667, brasofensine
     sulfate, bryostatin 1; Cantuzumab mertansine, CHS-828, cinacalcet
     hydrochloride, cipamfylline, creatine, CVT-3146; Darbepoetin alfa, DITPA,
     drotrecogin alfa (activated), duloxetine hydrochloride; Edatrexate,
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efalizumab, ENMD-0997, epoetin, erlosamide, esomeprazole magnesium, etiprednol dicloacetate, etoricoxib, everolimus, ezetimibe; Fampridine, fenretinide, FTY-720; IGF-I/IGFBP-3 IL-1 cytokine trap, ilodecakin,

interferon beta, ISIS-104838, ISIS-2503, ISIS-5132, ivabradine hydrochloride; Lafutidine, lanthanum carbonate, L-Arginine hydrochloride, LEA29Y, lerdelimumab, levetiracetam, levobupivacaine hydrochloride, levosimendan, lopinavir; Melagatran, mibefradil hydrochloride, miglustat, morphine-6-glucuronide; Nesiritide; Omalizumab, omapatrilat; p24-VLP, parecoxib sodium, peginterferon alfa-2a, peginterferon alfa-2b, pegsunercept, pitavastatin calcium, plevitrexed, prasterone, pregabalin, PRO-2000, prucalopride; Rapacuronium bromide, rebimastat, RGA-0853, rubitecan, ruboxistaurin mesilate hydrate, RWJ-67657; S-16020-2, sarizotan, SLV-306, stiripentol; TA-CIN, tenecteplase, teriparatide, tezacitabine, tipifarnib, trabectedin, troglitazone; Valdecoxib, vardenafil; Z-338, ziconotide. .COPYRGT. 2003 Prous Science. All rights reserved.

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enhanced

NEWS 20 OCT 22 WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT Applications

NEWS 21 OCT 24 CHEMLIST enhanced with intermediate list of pre-registered REACH substances

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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FILE 'MEDLINE' ENTERED AT 14:21:38 ON 29 OCT 2008

=> s portal (s) (hypertens? or pressure)
L1 20994 PORTAL (S) (HYPERTENS? OR PRESSURE)

=> s (phosphodiesterase or pde) (s) (5 or five)
L2 17871 (PHOSPHODIESTERASE OR PDE) (S) (5 OR FIVE)

=> s 11 and 12

L3 20 L1 AND L2

=> dup rem 13

PROCESSING COMPLETED FOR L3

L4 19 DUP REM L3 (1 DUPLICATE REMOVED)

=> s 14 and py<=2003

L5 1 L4 AND PY<=2003

=> d 15 ibib abs

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:396408 CAPLUS

DOCUMENT NUMBER: 122:157633

ORIGINAL REFERENCE NO.: 122:29029a,29032a

TITLE: Change in vascular cAMP and cGMP contents in

portal hypertensive rats

AUTHOR(S): Huang, Yi-Tsau; Lo, Jeng-Wu; Lin, Han-Chieh; Tsai,

Yang-Te; Hong, Chaung-Ye; Yang, May C. M.

CORPORATE SOURCE: Institute Traditional Medicine, National Yang Ming

Medical College, Taipei, Taiwan Pharmacology (1995), 50(2), 86-91 CODEN: PHMGBN; ISSN: 0031-7012

PUBLISHER: Karger
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The purpose of this study was to investigate the possible changes of

cyclic nucleotide contents in portal hypertensive rats. Portal hypertension was induced by partial

portal vein ligation (PVL) in Sprague-Dawley rats. Sham-operated

rats served as controls. Hemodynamic and cyclic nucleotide measurements were performed at 14 days after surgery. The portal venous pressure was significantly higher, while systemic arterial pressure and heart rate were lower in PVL rats than those in

pressure and heart rate were lower in PVL rats than those in controls. Basal cAMP (PVL, 10.91 \pm 0.98, vs. sham, 8.08 \pm 0.81 pmol/mg protein) and cGMP (PVL, 0.91 \pm 0.12, vs. sham, 0.59 \pm 0.05 pmol/mg protein) contents in the tail artery were significantly higher in

PVL rats. Isobutyryl methylxanthine (10-5 M), a nonspecific phosphodiesterase inhibitor, exerted similarly stimulating effects on the tissue cAMP (PVL, 158 ± 10 , vs. sham, $178 \pm 20\%$) and cGMP (295 ± 28 vs. $316 \pm 71\%$) levels in both PVL and control rats; so did forskolin (10-6 M) on the cAMP (184 ± 20 vs. $197 \pm 66\%$) content in

both groups. Our results showed that the arterial cAMP and cGMP contents were higher in PVL rats, which may contribute to the reduction of peripheral

resistance in portal hypertension.

=> s portal and hypertension and phosphodiesterase L6 38 PORTAL AND HYPERTENSION AND PHOSPHODIESTERASE

=> dup rem 16

SOURCE:

PROCESSING COMPLETED FOR L6

L7 36 DUP REM L6 (2 DUPLICATES REMOVED)

=> s 17 and py<=2003

L8 5 L7 AND PY<=2003

=> d 18 ibib abs 1-5

L8 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:590998 CAPLUS

DOCUMENT NUMBER: 139:128037

TITLE: Use of acetylcholine esterase antagonists to treat

insulin resistance

INVENTOR(S):

PATENT ASSIGNEE(S):

SOURCE:

Lautt, Wayne W.

Diamedica Inc., Can.

PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT :	NO.			KIN	D	DATE			APPL	ICAT	ION 1	NO.		DZ			
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PRIORITY APPLN. INFO.:
                                            US 2002-350958P
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                                                                  20020125
                                            WO 2003-CA78
                                                                   20030127
                                                                W
     A method is provided for reducing insulin resistance in a mammalian
     subject, comprising administering a suitable acetylcholine esterase
     antagonist.
REFERENCE COUNT:
                               THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 2 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:
                         1995:396408 CAPLUS
                         122:157633
DOCUMENT NUMBER:
ORIGINAL REFERENCE NO.: 122:29029a,29032a
TITLE:
                         Change in vascular cAMP and cGMP contents in
                         portal hypertensive rats
                         Huang, Yi-Tsau; Lo, Jeng-Wu; Lin, Han-Chieh; Tsai,
AUTHOR(S):
                         Yang-Te; Hong, Chaung-Ye; Yang, May C. M.
                         Institute Traditional Medicine, National Yang Ming
CORPORATE SOURCE:
                         Medical College, Taipei, Taiwan
SOURCE:
                         Pharmacology (1995), 50(2), 86-91
                         CODEN: PHMGBN; ISSN: 0031-7012
PUBLISHER:
                         Karger
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
     The purpose of this study was to investigate the possible changes of
     cyclic nucleotide contents in portal hypertensive rats.
     Portal hypertension was induced by partial
     portal vein ligation (PVL) in Sprague-Dawley rats. Sham-operated
    rats served as controls. Hemodynamic and cyclic nucleotide measurements
     were performed at 14 days after surgery. The portal venous
     pressure was significantly higher, while systemic arterial pressure and
     heart rate were lower in PVL rats than those in controls. Basal cAMP
     (PVL, 10.91 \pm 0.98, vs. sham, 8.08 \pm 0.81 pmol/mg protein) and cGMP
     (PVL, 0.91 \pm 0.12, vs. sham, 0.59 \pm 0.05 pmol/mg protein) contents
     in the tail artery were significantly higher in PVL rats. Isobutyryl
     methylxanthine (10-5 \text{ M}), a nonspecific phosphodiesterase
     inhibitor, exerted similarly stimulating effects on the tissue cAMP (PVL,
     158 \pm 10, vs. sham, 178 \pm 20%) and cGMP (295 \pm 28 vs. 316 \pm
     71%) levels in both PVL and control rats; so did forskolin (10-6 M) on the
     cAMP (184 \pm 20 vs. 197 \pm 66%) content in both groups. Our results
     showed that the arterial cAMP and cGMP contents were higher in PVL rats,
     which may contribute to the reduction of peripheral resistance in
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L8 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:32896 CAPLUS

DOCUMENT NUMBER: 100:32896

portal hypertension.

ORIGINAL REFERENCE NO.: 100:5091a,5094a

Effects of sodium-decreased media on tonus and of TITLE:

spasmolytics on the responses to contractile agents in

portal veins from SHRSP and WKY [rats]

Murakami, Noriko; Niwa, Atsuko; Higashino, Hideaki; AUTHOR(S):

Suzuki, Aritomo

CORPORATE SOURCE: Sch. Med., Kinki Univ., Osaka, 659, Japan SOURCE: Vasc. Neuroeff. Mech., Int. Symp., 4th (1983)

), Meeting Date 1981, 413-16. Editor(s): Bevan, John A. Raven: New York,

N. Y.

CODEN: 50PUAW Conference

DOCUMENT TYPE: LANGUAGE: English

Isometric contractions of portal vein sections from stroke-prone spontaneously hypertensive rats (SHRSP) (induced by acetylcholine, norepinephrine, KCl, or BaCl2) were inhibited by dibutyryl cAMP, aminophylline (a phosphodiesterase inhibitor), or fenoterol (a $\beta\text{-stimulant})$ less than the vein sections from normal control Wistar Kyoto rats (WKY). Diltiazem (a Ca antagonist) inhibited the contractions in SHRSP more than in control WKY rats. The replacement of normal incubation medium (Locke's solution) by medium with low Na and(or) Ca concns. caused stronger contractions in SHRSP than in WKY controls. Thus, in SHRSP portal veins, the reactivity to cAMP is decreased; the reactivity of β -receptors is impaired; and Ca transport into cells and/or Ca release from cell stores are accelerated as compared with those of WKY rats.

ANSWER 4 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:84098 CAPLUS

DOCUMENT NUMBER: 82:84098

ORIGINAL REFERENCE NO.: 82:13468h,13469a

TITLE: Cyclic AMP [of] blood vessels of spontaneously

hypertensive rat

AUTHOR(S): Ramanathan, S.; Shibata, Shoji

CORPORATE SOURCE: Sch. Med., Univ. Hawaii, Honolulu, HI, USA

SOURCE: Blood Vessels (1974), 11(5), 312-18

CODEN: BLVSAB; ISSN: 0303-6847

DOCUMENT TYPE: Journal LANGUAGE: English

The vascular smooth muscle (aorta, portal vein, and renal arteries) from spontaneously hypertensive rats (SHR) contained a lower level of cyclic AMP. Similar differences were observed in young SHR that had not yet developed hypertension, as compared to their normotensive controls. However, no such difference was observed in the vascular smooth muscle from the cross-bred normotensive animals. adenyl cyclase and phosphodiesterase activities of the vascular smooth muscles from SHR was lower than the normotensive controls. Changes in cyclic AMP metabolism may occur during the process of hypertension

ANSWER 5 OF 5 MEDLINE on STN ACCESSION NUMBER: 2003179790 MEDLINE PubMed ID: 12644956 DOCUMENT NUMBER: TITLE: Pulmonary hypertension.

AUTHOR: Nicod Laurent P

CORPORATE SOURCE: Pulmonary division, University Hospital, Geneva,

Switzerland.. laurent.nicod@hcuge.ch

SOURCE: Swiss medical weekly : official journal of the Swiss

Society of Infectious Diseases, the Swiss Society of Internal Medicine, the Swiss Society of Pneumology, (2003 Feb 22) Vol. 133, No. 7-8, pp. 103-10. Ref:

Journal code: 100970884. ISSN: 1424-7860.

PUB. COUNTRY: Switzerland

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200306

ENTRY DATE: Entered STN: 18 Apr 2003

Last Updated on STN: 28 Jun 2003 Entered Medline: 27 Jun 2003

AB Pulmonary arterial hypertension (PAH) must be classified into primary pulmonary hypertension and PAH related to other diseases such as collagen vascular diseases, HIV infection or portal hypertension. PAH must also be differentiated from other entities, in particular pulmonary hypertension secondary to thromboembolic diseases, requiring specific approaches. All PAH results in similar histological remodelling of pulmonary arteries, with thickening of the intima, proliferation of the media and plexogenic lesions. Today the physiopathology of these lesions is much better understood and has resulted in new therapies involving substances such as prostacyclins, endothelin receptor antagonists or phosphodiesterase inhibitors, aimed not only at dilating arteries but also at preventing their remodelling. Thromboendarterectomy, septostomy and transplantation remain the only option where medical treatment has failed.

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ACCESSION NUMBER: 2008156741
                                 MEDLINE
DOCUMENT NUMBER:
                  PubMed ID: 18306330
TITLE:
                   Safety and efficacy of combined use of sildenafil
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, bosentan, and iloprost before and after liver

transplantation in severe portopulmonary

hypertension.

Austin Mark J; McDougall Neil I; Wendon Julia A; Sizer AUTHOR:

Elizabeth; Knisely Alex S; Rela Mohammed; Wilson Carol; Callender Michael E; O'Grady John G; Heneghan Michael A

CORPORATE SOURCE: Institute of Liver Studies, King's College Hospital,

London, England.

Liver transplantation : official publication of the SOURCE:

> American Association for the Study of Liver Diseases and the International Liver Transplantation Society, (2008 Mar)

Vol. 14, No. 3, pp. 287-91.

Journal code: 100909185. E-ISSN: 1527-6473.

PUB. COUNTRY: United States DOCUMENT TYPE: (CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200806

ENTRY DATE: Entered STN: 5 Mar 2008

> Last Updated on STN: 6 Jun 2008 Entered Medline: 5 Jun 2008

AΒ Portopulmonary hypertension (PPHTN) represents a constrictive

pulmonary vasculopathy in patients with portal

hypertension. Liver transplantation (LT) may be curative and is usually restricted to patients with mild-to-moderate disease severity

characterized by a mean pulmonary artery pressure (mPAP < 35 mm

Hg). Patients with severe disease (mPAP > 50 mm Hg) are usually excluded from transplantation. We describe a patient with severe PPHTN, initiated on sequential and ultimately combination therapy of prostacyclin, sildenafil, and bosentan (PSB) pretransplantation and continued for 2 years posttransplantation. Peak mPAP on PSB therapy was dramatically reduced from 70 mm Hg to 32 mm Hg pretransplantation, and continued therapy facilitated a further fall in mPAP to 28 mm Hg posttransplantation. The pulmonary vascular resistance index fell from 604 to 291 dyne second(-1) cm(-5). The perioperative mPAP rose to 100 mm Hg following an episode of sepsis and fell with optimization of PSB therapy. In conclusion, this is the first reported patient with severe PPHTN using this combination of vasodilator therapy as a bridge to LT and then as maintenance in the posttransplantation phase. This regimen may enable LT in similar patients in the future, without long-term

L12 ANSWER 2 OF 20 MEDLINE on STN ACCESSION NUMBER: 2007497047 MEDLINE DOCUMENT NUMBER: PubMed ID: 17715635

TITLE: Hepatopulmonary syndrome and portopulmonary

hypertension: what's new?.

Colle Isabelle; Van Steenkiste Christophe; Geerts Anja; Van AUTHOR:

Vlierberghe Hans

CORPORATE SOURCE: Department of Hepatology and Gastroenterology, Ghent

University Hospital, Ghent, Belgium...

Isabelle.Colle@ugent.be

SOURCE: Acta gastro-enterologica Belgica, (2007 Apr-Jun) Vol. 70,

No. 2, pp. 203-9. Ref: 67

Journal code: 0414075. ISSN: 0001-5644.

PUB. COUNTRY: Belgium

consequences.

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

Priority Journals FILE SEGMENT:

ENTRY MONTH: 200710

Entered STN: 25 Aug 2007 ENTRY DATE:

Last Updated on STN: 12 Oct 2007 Entered Medline: 11 Oct 2007

AB Hepatopulmonary syndrome (HPS) is found in 4-47% of patients with cirrhosis and is characterized by intrapulmonary vascular dilatations especially in the basal parts of the lung. Liver injury and/or portal hypertension trigger the release of endothelin-1, TNF-alpha, cytokines and mediate vascular shear stress and release of nitric oxide and carbon monoxide, all contributing to intrapulmonary vasodilation. Severe HPS increases mortality (30%) after liver transplantation, especially if Pa O2 is below 50 mmHq. The diagnosis is made by calculating the alveolar-arterial oxygen gradient and by performing a contrast echocardiography. Medical therapy fails and the only long-term treatment available is liver transplantation. More than 85% experience significant improvement or complete resolution in hypoxaemia, but this may take more than 1 year. Portopulmonary hypertension (PPHT) occurs in 2-8% of the patients with cirrhosis. Imbalance between vasodilating (decreased pulmonary expression of eNOS and prostacyclin I2) and vasoconstrictive agents (increased expression of ET-1 and angiotensin 1) may be responsible for misguided angiogenesis and pulmonary hypertension. The diagnosis is made by performing an echocardiography and a right heart catheterisation when systolic pulmonary artery pressure is higher than 30 mmHg on echocardiography. Although prostacyclin analogues are efficacious, adverse effects in terms of safety, tolerability and drug delivery occur. Bosentan is probably the therapy of choice for patients with PPHT because it decreases pulmonary but can also diminish portal hypertension. Sildenafil, a phosphodiesterase-5 inhibitor is used for idiopathic pulmonary hypertension, however, it should be used cautiously in patients with portal hypertension as it may increase portal hypertension by splanchnic vasodilation.

L12 ANSWER 3 OF 20 MEDLINE on STN

ACCESSION NUMBER: 2007523904 IN-PROCESS

DOCUMENT NUMBER: PubMed ID: 17623085

TITLE: Phosphodiesterase 5 inhibitors lower both portal

and pulmonary pressure in portopulmonary

hypertension: a case report.

AUTHOR: Bremer Hinrich C; Kreisel Wolfgang; Roecker Kai; Dreher

Michael; Koeniq Daniel; Kurz-Schmieg Anna Katharina; Blum

Hubert E; Roessle Martin; Deibert Peter

CORPORATE SOURCE: Department of Gastroenterology, Hepatology, Endocrinology

and Infectious Diseases, University Hospital, Freiburg,

Germany.. wolfgang.kreisel@uniklinik-freiburg.de

SOURCE: Journal of medical case reports, (2007) Vol. 1, pp. 46.

Electronic Publication: 2007-07-10.

Journal code: 101293382. E-ISSN: 1752-1947.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: NONMEDLINE; IN-DATA-REVIEW; IN-PROCESS; NONINDEXED

ENTRY DATE: Entered STN: 8 Sep 2007

Last Updated on STN: 8 Dec 2007

AB ABSTRACT: BACKGROUND: Portopulmonary hypertension (PPHTN) is a severe complication in liver cirrhosis. PDE5 inhibitors lower pulmonary arterial pressure (PAP) in PPHTN. However, their effect on portal hypertension has not yet been investigated. CASE PRESENTATION: A 55 year old male patient presented with PPHTN and alcoholic liver cirrhosis. 10 mg of Tadalafil, a PDE5 inhibitor with a long half-life, was administered orally under continuous monitoring of pulmonary and portal hemodynamics. For maintenance therapy the patient received Sildenafil 20 mg bid.Tadalafil lowered mean PAP from 45 to 39 mmHg within 60 minutes. Cardiac output (CO) increased from

6.8 to 7.9 l/min. Central venous pressure (CVP) remained stable at 3 mmHg. Systolic and diastolic blood pressure was lowered from 167/89 to 159/86 mmHg. Pulse rate increased from 75 to 87 per min. Wedged hepatic vein pressure (WHVP) decreased from 21 to 18 mm Hg, hepatovenous pressure gradient (HVPG) decreased from 10 to 7 mmHg. Hemodynamic monitoring after 6 months of Sildenafil therapy revealed a sustained lowering of mean PAP. HVPG remained constant at 10 mmHg. Cardiac and pulmonary performance had further improved. CONCLUSION: This case report shows for the first time, that phosphodiesterase 5 inhibitors lower both portal and pulmonary pressure in portopulmonary hypertension.

L12 ANSWER 4 OF 20 MEDLINE on STN ACCESSION NUMBER: 2006176244 MEDLINE DOCUMENT NUMBER: PubMed ID: 16555327

TITLE: Successful treatment of severe portopulmonary

hypertension in a patient with Child C cirrhosis by

sildenafil.

AUTHOR: Callejas Rubio Jose Luis; Salmeron Escobar Javier;

Gonzalez-Calvin Jorge; Ortego Centeno Norberto

SOURCE: Liver transplantation : official publication of the

American Association for the Study of Liver Diseases and the International Liver Transplantation Society, (2006 Apr)

Vol. 12, No. 4, pp. 690-1.

Journal code: 100909185. ISSN: 1527-6465.

PUB. COUNTRY: United States
DOCUMENT TYPE: (CASE REPORTS)
Commentary

Letter

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200609

ENTRY DATE: Entered STN: 30 Mar 2006

Last Updated on STN: 13 Sep 2006 Entered Medline: 12 Sep 2006

L12 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1123280 CAPLUS

DOCUMENT NUMBER: 145:449221

TITLE: Roflumilast and roflumilast N-oxide for the treatment

of pulmonary hypertension, and combinations

with phosphodiesterase 5 inhibitors

INVENTOR(S): Beume, Rolf; Hatzelmann, Armin; Marx, Degenhard;

Deame, Roll, Indezelmann, Minth, Park, Degelinato,

Schudt, Christian; Tenor, Hermann; Eddahibi, Saadia;

Adnot, Serge

PATENT ASSIGNEE(S): Altana Pharma AG, Germany SOURCE: PCT Int. Appl., 40pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 2006111495	A1 20061026	WO 2006-EP61557	20060412
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PRIORITY APPLN. INFO.:
                                               EP 2005-103147
                                                                    A 20050419
                                               WO 2006-EP61557 W 20060412
AΒ
     The invention discloses the use of roflumilast, roflumilast-N-Oxide, or a
     pharmaceutically acceptable salt of either for the treatment of pulmonary
     hypertension. The invention addnl. discloses the use of
     roflumilast, roflumilast-N-oxide or a pharmaceutically acceptable salt of
     either in combination with a phosphodiesterase 5 inhibitor, or a
     pharmaceutically acceptable salt thereof, for the treatment of pulmonary
     hypertension.
                                 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                          16
                                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L12 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN
                      2006:149404 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                          144:205821
TITLE:
                          2-Phenyl-substituted imidazotriazinone derivative
                          phosphodiesterase 5 inhibitors for the treatment of
                          symptoms treatable by increasing cGMP levels
INVENTOR(S):
                          Haning, Helmut
PATENT ASSIGNEE(S):
                         Bayer Healthcare A.-G., Germany
SOURCE:
                          PCT Int. Appl., 37 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
LANGUAGE:
                          German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
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     WO 2006015715 A1 20060216
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DE 102004038328

A1 20060316 DE 2004-102004038328 20040806

AU 2005270446 A1 20060216 AU 2005-270446 20050723
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PRIORITY APPLN. INFO.:
                                        DE 2004-102004038328A 20040806
                                         WO 2005-EP8057
                                                         W 20050723
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OTHER SOURCE(S): MARPAT 144:205821

AB The invention relates to the use of PDE 5 inhibitors, and especially of known 2-phenyl-substituted imidazotriazinone derivs., for producing medicaments for the treatment of symptoms that can be treated by increasing cGMP levels in certain tissues, e.g. acute myocardial infarction and damage caused by reperfusion, various symptoms in the female and male reproductive system and urogenital tract, gastrointestinal diseases, damage caused by diabetes, and liver failure.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 20 MEDLINE on STN ACCESSION NUMBER: 2006429328 MEDLINE DOCUMENT NUMBER: PubMed ID: 16856046

TITLE: Endothelin receptor antagonists for pulmonary arterial

hypertension.

AUTHOR: Liu C; Chen J

CORPORATE SOURCE: Monash University, Australasian Cochrane Centre, Locked Bag

29, Clayton, VIctoria, Australia 3168.. lcwv@sohu.com Cochrane database of systematic reviews (Online), (2006)

Vol. 3, pp. CD004434. Electronic Publication: 2006-07-19. Ref: 42

Journal code: 100909747. E-ISSN: 1469-493X.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(META-ANALYSIS)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200610

SOURCE:

ENTRY DATE: Entered STN: 21 Jul 2006

Last Updated on STN: 17 Oct 2006 Entered Medline: 16 Oct 2006

BACKGROUND: Pulmonary arterial hypertension (PAH) is a AΒ devastating disease, which leads to right heart failure and premature death. Pulmonary arterial hypertension can be classified into five categories according to Venice classification: (1) Idiopathic PAH; (2) Familial PAH; (3) PAH associated with collagen vascular disease, congenital systemic-to-pulmonary shunts, portal hypertension, HIV infection, drugs and toxins or other (thyroid disorders, glycogen storage disease, Gaucher disease, hereditary hemorrhagic telangiectasia, hemoglobinopathies, myeloproliferative disorders, splenectomy); (4) PAH associated with significant venous or capillary involvement, which includes pulmonary veno-occlusive disease (PVOD) and pulmonary capillary hemangiomatosis (PCH); (5) Persistent pulmonary hypertension of the newborn. PAH can also be secondary to chronic hypoxic lung disease as part of the "cor-pulmonale" syndrome, and also secondary to left sided heart disease, but these conditions are usually distinguished from those listed here. OBJECTIVES:

To evaluate the efficacy of endothelin receptor antagonists in pulmonary arterial hypertension. SEARCH STRATEGY: A search was carried out using the CENTRAL (Cochrane Central Register of Controlled Trials), MEDLINE, EMBASE, and the reference section of retrieved articles. Searches are current as of August 2005. SELECTION CRITERIA: Randomised controlled trials (RCTs) or quasi-randomised controlled trials involving patients with pulmonary arterial hypertension (PAH) were selected by two reviewers. DATA COLLECTION AND ANALYSIS: Two reviewers independently selected studies; assessed study quality; and extracted We analysed outcomes as continuous and dichotomous data. MAIN RESULTS: In this updated version of the review, we added two RCTs. Altogether, five RCTs met the entry criteria of the review (reporting eight group comparisons). The studies were of short duration (12-16)weeks), recruiting a total of 482 participants. Three studies compared a non-selective ERA (bosentan) with placebo, one compared bosentan with sildenafil (a phosphodiesterase inhibitor) , and one compared a selective ERA (sitaxsentan) with placebo. Over a 12-16 week period ERAs improved exercise capacity, improve Borg dyspnoea score, some measures of cardiopulmonary haemodynamics (pulmonary artery pressure, pulmonary vascular resistance, and cardiac index) in symptomatic patients with mainly idiopathic PAH. The effect of ERAs on mortality was not significant. The most severe side effect, hepatic toxicity, was not common. AUTHORS' CONCLUSIONS: ERAs in conjunction with conventional therapy over 12 to 16 weeks can improve exercise capacity, Borg dyspnoea scores and several cardiopulmonary haemodynamics variables in patients mainly with idiopathic PAH. The data on mortality do not currently show a benefit of this class of drugs on this endpoint. Additional assessment of this outcome is important in order to establish whether there is evidence that ERAs have an impact on the risk of death. Longer studies are required.

L12 ANSWER 8 OF 20 MEDLINE on STN ACCESSION NUMBER: 2006614048 MEDLINE DOCUMENT NUMBER: PubMed ID: 17048047

TITLE: Portopulmonary hypertension.

AUTHOR: Halank Michael; Ewert Ralf; Seyfarth Hans-Juergen; Hoeffken

Gert

CORPORATE SOURCE: Carl Gustav Carus University Dresden, Internal Medicine I,

Fetscherstr. 74, 01307 Dresden, Germany.

SOURCE: Journal of gastroenterology, (2006 Sep) Vol. 41, No. 9, pp.

837-47. Ref: 86

Journal code: 9430794. ISSN: 0944-1174.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200701

ENTRY DATE: Entered STN: 19 Oct 2006

Last Updated on STN: 10 Jan 2007

Entered Medline: 9 Jan 2007

AB Portopulmonary hypertension (PPHT) is defined as precapillary pulmonary hypertension accompanied by hepatic disease or portal hypertension. Pulmonary hypertension results from excessive pulmonary vascular remodeling and vasoconstriction. These histological alterations have been indistinguishable from those of other forms of pulmonary arterial hypertension. Factors involved in the pathogenesis of PPHT include volume overload, hyperdynamic circulation, and circulating vasoactive mediators. The disorder has a substantial impact on survival and requires focused treatment. Liver transplantation in patients with moderate to severe PPHT is associated with a significantly reduced survival rate. The best medical treatment

for patients with PPHT is controversial; most authors currently regard continuous intravenous application of prostacyclin as the treatment of choice for patients with severe PPHT. There is only very limited reported experience with inhaled prostacyclin or its analog, iloprost. Increasing evidence of the efficacy of the endothelin-receptor antagonist bosentan and of the phosphodiesterase-5 inhibitor sildenafil is emerging in highly selected patients with PPHT. In the future, a combination therapy of the above-mentioned agents might become a therapeutic option. Other agents such as beta-blockers seem to be harmful to patients with moderate to severe portopulmonary hypertension. Up-to-date, randomized, double-blind, controlled clinical trials are lacking and are needed urgently.

L12 ANSWER 9 OF 20 MEDLINE ON STN ACCESSION NUMBER: 2007007757 MEDLINE DOCUMENT NUMBER: PubMed ID: 17202968

TITLE: [Porto-pulmonary hypertension]. Hypertension portopulmonaire.

AUTHOR: Chabot F; Gomez E; Boyer L; Kheir A; Le Pavec J; Sitbon O;

Herve P

CORPORATE SOURCE: Service des Maladies Respiratoires et Reanimation

Respiratoire, CHU Nancy, Universite Henri Poincare, Nancy,

France.. f.chabot@chu-nancy.fr

SOURCE: Revue des maladies respiratoires, (2006 Dec) Vol. 23, No.

6, pp. 629-41. Ref: 81

Journal code: 8408032. ISSN: 0761-8425.

PUB. COUNTRY: France

DOCUMENT TYPE: (ENGLISH ABSTRACT)

Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: French

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200710

ENTRY DATE: Entered STN: 5 Jan 2007

Last Updated on STN: 25 Oct 2007 Entered Medline: 24 Oct 2007

AΒ INTRODUCTION: Porto-pulmonary hypertension (PoPH) is the association of pulmonary artery hypertension and portal hypertension. The diagnosis of PoPH is based on pulmonary haemodynamic criteria, obtained via right heart catheterisation, including an increase in mean pulmonary arterial pressure (> 25 mmHq) and in pulmonary vascular resistance (> 240 dyn.s.cm-5). STATE OF THE ART: The exact pathophysiological mechanisms of PoPH are unknown. However, since PoPH has been reported in patients with non-hepatic portal hypertension, the factor that determines the development must be portal hypertension rather than liver disease per se. Moreover, no simple relationship has been identified between the degree of hepatic impairment and the severity of PoPH. The clinical presentation is non-specific with haemodynamic failure occurring at the end stage. As a consequence, screening by annual transthoracic echocardiography is highly recommended in potential liver transplant candidates. Therapy with prostacyclin analogues may partially relieve pulmonary arterial hypertension (PAH). Liver transplantation has an uncertain effect in PoPH and because PoPH is associated with a high perioperative mortality, moderate to severe PoPH remains a contraindication for liver transplantation. PERSPECTIVES AND CONCLUSIONS: Recent advances in the management of PoPH have improved the prognosis. The safety and efficacy of oral endothelin receptor antagonists and oral phosphodiesterase inhibitors is currently under evaluation. A therapeutic approach utilising combinations of drugs should provide better long-term results.

ACCESSION NUMBER: 2006444363 MEDLINE DOCUMENT NUMBER: PubMed ID: 16868809

TITLE: Sildenafil decreased pulmonary arterial pressure but may have exacerbated portal

hypertension in a patient with cirrhosis and

portopulmonary hypertension.

AUTHOR: Wang Ying-Wen; Lin Han-Chieh; Yang Ying-Ying; Hou

Ming-Chih; Lee Shou-Dong

CORPORATE SOURCE: Division of Gastroenterology, Department of Medicine,

Taipei Veterans General Hospital and National Yang-Ming University School of Medicine, 201, Section 2, Shih-Pai

Road, Taipei, 11217, Taiwan.

SOURCE: Journal of gastroenterology, (2006 Jun) Vol. 41, No. 6, pp.

593-7.

Journal code: 9430794. ISSN: 0944-1174.

PUB. COUNTRY: Japan

DOCUMENT TYPE: (CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200702

ENTRY DATE: Entered STN: 27 Jul 2006

Last Updated on STN: 21 Feb 2007 Entered Medline: 20 Feb 2007

AB Portopulmonary hypertension is a recognized but uncommon

complication of cirrhosis. Liver transplantation may be contraindicated

in patients with severe portopulmonary hypertension. In order

to decrease the pulmonary arterial pressure, intravenous

administration of epoprostenol has been shown to provide substantial beneficial results in these patients. Additionally, a recent case report

demonstrated that long-term oral administration of sildenafil

decreased pulmonary arterial pressure, but its effects on

splanchnic hemodynamics were not measured. We report on a patient with

cirrhosis and portopulmonary hypertension and the changes in the hemodynamic status after an oral administration of sildenafil. This case report clearly delineates that sildenafil decreases

pulmonary arterial pressure but may exacerbate portal hypertension and hyperdynamic circulation in patients with

cirrhosis and portopulmonary hypertension.

L12 ANSWER 11 OF 20 MEDLINE on STN ACCESSION NUMBER: 2006007040 MEDLINE DOCUMENT NUMBER: PubMed ID: 16393289

TITLE: Effect of vardenafil, an inhibitor of

phosphodiesterase-5, on portal haemodynamics in

normal and cirrhotic liver -- results of a pilot study. Deibert P; Schumacher Y-O; Ruecker G; Opitz O G; Blum H E;

Rossle M; Kreisel W

CORPORATE SOURCE: Department of Preventive and Rehabilitative Sports

Medicine, University Hospital Freiburg, Freiburg, Germany.

SOURCE: Alimentary pharmacology & therapeutics, (2006 Jan 1) Vol.

23, No. 1, pp. 121-8.

Journal code: 8707234. ISSN: 0269-2813.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200605

AUTHOR:

ENTRY DATE: Entered STN: 6 Jan 2006

Last Updated on STN: 4 May 2006 Entered Medline: 3 May 2006 BACKGROUND: Dysregulation of the cyclic guanosine 3',5' monophosphate-nitric oxide system is in part responsible for portal hypertension in cirrhosis. AIM: To test the effects of inhibitors of phosphodiesterase-5 on portal haemodynamics. METHODS: To 18 healthy subjects and 18 patients with Child A liver cirrhosis, 10 mg of vardenafil, an inhibitor of phosphodiesterase-5, were administered orally. Doppler sonographic measurements of hepatic and splanchnic blood flow, systemic blood pressure and heart rate were recorded before, 1 h after, and 48 h after the application. Vardenafil plasma levels were determined after 1 h. In five patients, invasive registration of free and wedged hepatic vein pressure was performed. RESULTS: Portal venous flow increased in patients from 0.82 +/- 0.30 L/min (mean +/- s.d.) by 26% (CI: 16-37%, P = 0.0004) and in healthy subjects from 0.75 +/- 0.20 L/min (mean +/- s.d.) by 19% (CI: 9-28%; P = 0.0010). Celiac and hepatic artery resistivity indices rose significantly. Systemic blood pressure decreased slightly in patients. The wedged hepatic venous pressure gradient decreased in four of five patients with liver cirrhosis. Vardenafil plasma levels were higher in patients $(14 +/- 10 \text{ microg/L})^{-}$ than in healthy subjects (9 +/- 6 microg/L;n.s.). CONCLUSIONS: Inhibition of phosphodiesterase-5 increases portal flow and lowers portal pressure by a decrease in sinusoidal resistance and may be a novel therapeutic strategy for portal hypertension.

L12 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1303561 CAPLUS

DOCUMENT NUMBER: 144:285886

AR

TITLE: Bosentan for the treatment of pulmonary arterial

hypertension. (II)

AUTHOR(S): Antoniu, Sabina A.

CORPORATE SOURCE: Clinic of Pulmonary Disease, University of Medicine

and Pharmacy, Iasi, 700070, Rom.

SOURCE: Therapy (2005), 2(6), 849-852 CODEN: THERCR; ISSN: 1475-0708

PUBLISHER: Future Drugs Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

hypertension.

Portopulmonary hypertension is defined as pulmonary arterial hypertension occurring in the presence of portal hypertension. It is classified as a subset of pulmonary arterial hypertension and accordingly it is defined hemodynamically. Portopulmonary hypertension shares the main pathol. features as well as diagnostic approach with other forms of pulmonary arterial hypertension. Several nonpharmacol. and pharmacol. approaches are currently available. Among the pharmacol. approaches prostacycline and its derivs., phosphodiesterase-5 inhibitors such as sildenafil and endothelin receptor antagonists such as bosentan, have been used in portopulmonary hypertension treatment. This is a case series report on the long-term efficacy of bosentan treatment for severe (New York Heart Association functional Class III and IV) portopulmonary

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 20 MEDLINE on STN ACCESSION NUMBER: 2005174518 MEDLINE DOCUMENT NUMBER: PubMed ID: 15797756

TITLE: Novel use of sildenafil in the treatment of

portopulmonary hypertension.

Chua Roderick; Keogh Anne; Miyashita Masami AUTHOR:

CORPORATE SOURCE: St. Vincent's Hospital, Sydney, New South Wales, Australia.

SOURCE: The Journal of heart and lung transplantation : the

official publication of the International Society for Heart Transplantation, (2005 Apr) Vol. 24, No. 4, pp. 498-500.

Journal code: 9102703. ISSN: 1053-2498.

PUB. COUNTRY: United States DOCUMENT TYPE: (CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200506

ENTRY DATE: Entered STN: 6 Apr 2005

Last Updated on STN: 29 Jun 2005 Entered Medline: 28 Jun 2005

AB Portopulmonary hypertension is a poorly understood and uncommon

complication of advanced chronic liver disease. Current therapy is based

largely on treatment options proven in idiopathic pulmonary

hypertension. The severity of the portopulmonary

hypertension should best be attenuated medically before attempting

combined liver and lung transplantation to avoid increased peri-operative mortality. This case report describes the successful use of sildenafil to decrease the pulmonary vascular resistance in a patient with hepatitis-C cirrhosis who was preparing for liver

transplantation.

L12 ANSWER 14 OF 20 MEDLINE on STN ACCESSION NUMBER: 2005078879 MEDLINE DOCUMENT NUMBER: PubMed ID: 15708146

TITLE: Fatal variceal rupture after sildenafil use:

report of a case.

AUTHOR: Finley David S; Lugo Brian; Ridgway James; Teng Wang;

Imagawa David K

CORPORATE SOURCE: Division of Hepatobiliary and Pancreas Surgery, Department

of Surgery, University of California, Irvine, Orange,

California 92868, USA.. finds@uci.edu

SOURCE: Current surgery, (2005 Jan-Feb) Vol. 62, No. 1, pp. 55-6.

Journal code: 7802123. ISSN: 0149-7944.

PUB. COUNTRY: United States DOCUMENT TYPE: (CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200506

ENTRY DATE: Entered STN: 16 Feb 2005

Last Updated on STN: 24 Jun 2005 Entered Medline: 23 Jun 2005

AB Sildenafil may increase the risk of variceal bleeding in

portal hyptertension by increasing splanchnic blood flow. We report herein the second case of variceal rupture after sildenafil

use.

L12 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1080763 CAPLUS

DOCUMENT NUMBER: 142:16820

TITLE: Use of a phosphodiesterase V inhibitor for the

prophylaxis and/or treatment of portal

hypertension

INVENTOR(S):
Kreisel, Wolfgang

PATENT ASSIGNEE(S): Universitatsklinikum Freiburg, Germany

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

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			LK, NO,	LR, NZ,	LS, OM,	LT, PG,	LU, PH,	LV, PL,	MA, PT,	MD, RO,	MG, RU,	MK, SC,	MN, SD,	MW, SE,	MX, SG,	MZ SK	, NA, , SL, , ZM,	NI, SY,
	F	₹W:	BW, AZ,	GH, BY,	GM, KG,	KE, KZ,	LS, MD,	MW, RU,	MΖ, TJ,	NA, TM,	SD,	SL, BE,	SZ, BG,	TZ, CH,	UG, CY,	ZM CZ	ZW, , DE, , RO,	AM, DK,
				SK, TD,		BF,	BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML	, MR,	NE,
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DE	E 10	325	5813			В4		2007	1220									
						A2		2006	0322		EP 2	2004-	7395	73			20040	603
						В1		2007	0502									
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ES	3 22	287	740			Т3											20040	603
EF	2 19	230	73			A2		2008	0521		EP 2	2006-	2522	9			20040	603
EF	2 19	230	73			АЗ		2008	0709									
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AB The invention discloses a medicament for the prophylaxis and/or treatment of diseases or complications associated with portal hypertension, especially hemorrhagic complications. The invention uses a phosphodiesterase V inhibitor, e.g. sildenafil.

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L12 ANSWER 16 OF 20 MEDLINE on STN DUPLICATE 1
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ACCESSION NUMBER: 2004205321 MEDLINE DOCUMENT NUMBER: PubMed ID: 15102002

TITLE: Systemic and splanchnic haemodynamic effects of sildenafil in an in vivo animal model of cirrhosis

support for a risk in cirrhotic patients.

AUTHOR: Colle Isabelle; De Vriese An S; Van Vlierberghe Hans;

Lameire Norbert H; DeVos Martine

CORPORATE SOURCE: Department of Medicine, Ghent University Hospital, Ghent,

Belgium.. Isabelle.Colle@rug.ac.be

SOURCE: Liver international: official journal of the International

Association for the Study of the Liver, (2004 Feb) Vol. 24,

No. 1, pp. 63-8.

Journal code: 101160857. ISSN: 1478-3223.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200405

ENTRY DATE: Entered STN: 23 Apr 2004

Last Updated on STN: 28 May 2004 Entered Medline: 27 May 2004

OBJECTIVES: Sildenafil is a selective inhibitor of the AB cGMP-specific phosphodiesterase type V (PDE-V) in the corpus cavernosum. PDE-V is also present in the mesenteric artery. Cirrhosis is complicated by a splanchnic vasodilation attributed to a local overproduction of nitric oxide (NO). As sildenafil potentiates the effects of NO, it may further decrease mesenteric vascular tone and increase portal venous blood flow. The aim is to evaluate the effects of sildenafil on the systemic and splanchnic haemodynamics in an experimental model of cirrhosis. METHODS: Secondary biliary cirrhosis was induced in male Wistar rats by common bile duct ligation (CBDL, n=8); control rats were sham-operated (sham, n=7). The mean arterial pressure (MAP), portal venous pressure (PVP) and arterial mesenteric blood flow (MBF) were measured after intramesenteric (0.01-10 mg/kg) and after intravenous (i.v.) (0.01-10 mg/kg) administration of sildenafil. RESULTS: Baseline PVP was significantly higher in CBDL than in sham rats, whereas baseline MAP tended to be lower and MBF tended to be higher in CBDL compared with sham rats. Both intramesenteric and i.v. injection of sildenafil significantly decreased MAP and increased MBF and PVP in a dose-dependent way. The decrease in MAP was significantly less important in CBDL than in sham rats. The increase in MBF was importantly lower in CBDL than in sham rats. PVP tended to increase more significantly in sham rats than in CBDL. CONCLUSION: Sildenafil increases MBF and PVP and induces systemic hypotension. The effects are less pronounced in cirrhosis, suggesting vascular hyporesponsiveness to sildenafil. Although the rise in PVP in cirrhotic animals is smaller than in controls, it may present a risk for haemorrhagic complications. Further studies are necessary before prescribing sildenafil to patients with cirrhosis.

L12 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:590998 CAPLUS

DOCUMENT NUMBER: 139:128037

TITLE: Use of acetylcholine esterase antagonists to treat

insulin resistance Lautt, Wayne W.

INVENTOR(S): Lautt, Wayne W.

PATENT ASSIGNEE(S): Diamedica Inc., Can.

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT	ΝΟ.			KIND		DATE			APPL	ICAT		DATE						
WO	2003				A1	_	2003	0731		WO 2	003-	 CA78			2	0030	 127		
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		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,		
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,		
		LS, LT, LU				MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,		
		PL, PT, RO				SC,	SD,	SE,	SG,	SK,	SL,	ΤJ,	TM,	TN,	TR,	TT,	TZ,		
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	RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,		
		KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,		
		FΙ,	FR,	GB,	GR,	HU,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	SI,	SK,	TR,	BF,		
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US	2003	0235	609		A1		2003	1225		US 2	003-	3504	78		20030124				
CA	2514		A1		2003	0731	1	CA 2003-2514088						20030127					
EP	1471	905			A1 200			1103		EP 2003-700275					20030127				

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK JP 2005519906 Т 20050707 JP 2003-561592 20030127 AU 2003201578 B2 20080306 AU 2003-201578 20030127 US 20050049293 Α1 20050303 US 2004-502066 20041027 PRIORITY APPLN. INFO.: US 2002-350958P P 20020125 WO 2003-CA78 W 20030127

AB A method is provided for reducing insulin resistance in a mammalian subject, comprising administering a suitable acetylcholine esterase antagonist.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 18 OF 20 MEDLINE on STN ACCESSION NUMBER: 2003524976 MEDLINE DOCUMENT NUMBER: PubMed ID: 14603504

TITLE: Pharmacokinetics of DA-8159, a new erectogenic, after

intravenous and oral administration to rats: hepatic and

intestinal first-pass effects.

AUTHOR: Shim Hyun J; Kim Yu C; Park Kyung J; Kim Dong S; Kwon Jong

W; Kim Won B; Lee Myung G

CORPORATE SOURCE: College of Pharmacy and Research Institute of

Pharmaceutical Sciences, Seoul National University, Seoul,

South Korea.

SOURCE: Journal of pharmaceutical sciences, (2003 Nov) Vol. 92, No.

11, pp. 2185-95.

Journal code: 2985195R. ISSN: 0022-3549.

PUB. COUNTRY: United States DOCUMENT TYPE: (IN VITRO)

Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200406

ENTRY DATE: Entered STN: 7 Nov 2003

Last Updated on STN: 24 Jun 2004 Entered Medline: 18 Jun 2004

AΒ The purposes of this study were to report dose-independent (after intravenous administration) and dose-dependent (after oral administration) area under the curve of plasma concentration versus time from time zero to time infinity (AUC), and gastric, intestinal, and/or hepatic first-pass effects (after intravenous, intraportal, intragastric, and intraduodenal administration) of DA-8159 [5-[2-propyloxy-5-(1-methyl-2-methylpyrollidinylethylamidosulfonyl)phenyl]-1-methyl-3-propyl-1,6-dihydro-7Hpyrazolo(4,3-d)pyrimidine-7-one], a new erectogenic, in rats. After intravenous administration at doses of 5, 10, and 30 mg/kg, the AUCs and time-averaged total body clearances (CLs) were dose-independent. However, the AUCs were dose-dependent after oral administration at doses of 20, 30, 50, and 100 mg/kg. This result could be due to saturation of first-pass effects at high doses. The extent of absolute oral bioavailability (F) of DA-8159 was 38.0% at a dose of 30 mg/kg. Considering almost complete absorption of DA-8159 from rat gastrointestinal tract (approximately 99% of oral dose of 30 mg/kg), the low F could be due to considerable hepatic, gastric, and/or intestinal first-pass effects. After intravenous administration at three doses, the CLs were considerably slower than the reported cardiac output in rats, suggesting almost negligible first-pass effect of DA-8159 in the heart and lung. The AUCs were not significantly different between intragastric and intraduodenal administration of DA-8159 at a dose of 30 mg/kg (131 and 127 microg x min/mL), suggesting that gastric first-pass effect of DA-8159 was almost negligible in rats. However, the values were significantly smaller than that after intraportal administration (311 microg x min/mL), indicating considerable intestinal

first-pass effect of DA-8159 in rats of approximately 58% of the oral dose. Approximately 23% of DA-8159 at a dose of 30 mg/kg absorbed into the portal vein was eliminated by the liver (hepatic first-pass effect) based on AUC difference between intravenous and intraportal administration (the value, 23%, was equivalent to approximately 9.6% of oral dose). The low F of DA-8159 after oral administration at a dose of 30 mg/kg to rats was mainly due to considerable intestinal (approximately 58%) first-pass effects.

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L12 ANSWER 19 OF 20 MEDLINE on STN DUPLICATE 2

ACCESSION NUMBER: 2005074182 MEDLINE DOCUMENT NUMBER: PubMed ID: 15703602 TITLE: Gastroduodenal motility.

AUTHOR: Ramkumar Davendra; Schulze Konrad S

CORPORATE SOURCE: University of Iowa HealthCare and VAMC, Iowa City, Iowa,

USA.. davendra_ramkumar@uiowa.edu

SOURCE: Current opinion in gastroenterology, (2003 Nov) Vol. 19,

No. 6, pp. 540-5.

Journal code: 8506887. ISSN: 0267-1379.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: NONMEDLINE; PUBMED-NOT-MEDLINE

ENTRY MONTH: 200503

ENTRY DATE: Entered STN: 11 Feb 2005

Last Updated on STN: 29 Mar 2005 Entered Medline: 28 Mar 2005

AΒ PURPOSE OF REVIEW: The neuromuscular function of the stomach and duodenum provides the mechanical forces that drive digestion and are responsible for sensations of satiety and of dyspepsia. This article reviews (1) the neuroendocrine factors controlling upper gastrointestinal motility, (2) noninvasive techniques to evaluate gastroduodenal motility, and (3) the pathophysiology and treatment of gastroparesis. RECENT FINDINGS: Nutrients in the duodenum inhibit gastric emptying via a feedback pathway that involves release of cholecystokinin and serotonin (5-HT) from neuroendocrine cells; both act peripherally, cholecystokinin via cholecystokinin A receptors and serotonin via 5-HT3 receptors. vagal complex plays a central role in the gastric inhibition mediated by tumor necrosis factor-alpha. The construction of maps that define intestinal movements in time and space has now been extended to the stomach. MRI compares favorably with the barostat in assessing gastric volume accommodation to meals and drugs and has the advantage of being noninvasive and showing contractions. Gastroparesis is increasingly recognized as a complication of end-stage liver disease; ascites plays no role in this, but portal hypertension stiffens the gastric walls and creates hypoxic conditions that may interfere with the neuromuscular functions of the stomach. Promising for the treatment of gastroparesis are clonidine, sildenafil, and intrapyloric botulinum toxin. Electrical stimulation triggers a vagally mediated relaxation of the stomach. SUMMARY: Drugs may be designed that specifically act on 5-HT3, cholecystokinin, or TNF-alpha receptors. Spatiotemporal maps should boost the diagnostic yield from dynamic imaging of motility using ultrasound, computed axial tomography scan, or MRI and the understanding of the mechanical forces driving digestion. Symptomatic benefit in gastroparesis may derive more from improved accommodation than gastric emptying.

L12 ANSWER 20 OF 20 MEDLINE on STN ACCESSION NUMBER: 2001662941 MEDLINE DOCUMENT NUMBER: PubMed ID: 11708765

TITLE: Current management of primary pulmonary

hypertension.

AUTHOR: Klings E S; Farber H W

CORPORATE SOURCE: The Pulmonary Center, Boston University School of Medicine,

Massachusetts 02118, USA.. eklings@lung.bumc.bu.edu Drugs, (2001) Vol. 61, No. 13, pp. 1945-56. Ref: 59

Journal code: 7600076. ISSN: 0012-6667.

PUB. COUNTRY: New Zealand

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

General Review; (REVIEW)

LANGUAGE: English

SOURCE:

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200203

ENTRY DATE: Entered STN: 19 Nov 2001

Last Updated on STN: 8 Mar 2002 Entered Medline: 7 Mar 2002

AΒ Primary pulmonary hypertension (PPH) is a rare disorder with an annual incidence of 1 to 2 per million people. The aetiology of this disorder is unknown, but it appears to result from an abnormal interaction of environmental and genetic factors leading to a vasculopathy. The pulmonary arteries in these patients exhibit a spectrum of pathological lesions ranging from the early medial hypertrophy to the end-stage fibrotic plexiform lesions. This characteristic pathology is also observed in pulmonary hypertension resulting from connective tissue disease (particularly systemic sclerosis), HIV infection, portal hypertension and certain toxins. PPH is a condition that is difficult to diagnose and treat, with a median survival of 2.8 years in historical studies. One of the difficulties in treating patients with PHH is that the subacute nature of disease presentation often prevents an accurate diagnosis during the early stages of the illness. Progressive dyspnoea on exertion is the most common presenting symptom. Diagnostic evaluation should include electrocardiography, chest radiograph and echocardiography, and laboratory and other studies to evaluate for secondary causes (e.g. pulmonary function tests, chest computed tomography and ventilation/perfusion scans, pulmonary arteriogram, cardiopulmonary testing, right heart catherisation). PHH is a disorder for which there is no known cure. Current medical and surgical treatment options for patients with PHH include anticoagulation, vasodilators and transplantation. Calcium channel antagonists are currently the oral drugs of choice for the treatment of patients with New York Heart Association (NYHA) Class II disease. These agents, in particular the dihydropyridine compounds, have beneficial effects on haemodynamics and right ventricular function, and possibly increased survival. Epoprostenol is administered by intravenous infusion, and studies have demonstrated short- and long-term improvements in symptoms, haemodynamics and survival. It is well tolerated and has become the treatment of choice for patients with NYHA Class III and IV disease. Inotropic agents are used as a bridge to transplant, which is indicated in patients who do not respond to maximal medical therapy. Experience has shown that single lung, double lung and heart-lung transplantation are approximately of equal efficacy. Currently, single lung transplant appears to be the procedure of choice. Newer agents, such as sildenafil, beraprost and bosentan, are presently being evaluated for the treatment of this disorder. Future study should include elucidation of the pathogenic mechanisms in the development of this vasculopathy, which will hopefully lead to the development of improved treatment options for patients with PHH.

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NEWS	13	SEP	26	WPIDS, WPINDEX, and WPIX coverage of Chinese and
				and Korean patents enhanced
NEWS	14	SEP	29	IFICLS enhanced with new super search field
NEWS	15	SEP	29	EMBASE and EMBAL enhanced with new search and
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27-14 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1, 63

TI Chromenones and their use as modulators of metabotropic glutamate

receptors, preparation, pharmaceutical compositions and use in the treatment of neurological disorders

ST chromenone prepn metabotropic glutamate receptor modulator treatment neurol disorder

IT Obesity

(-related disorders, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT AIDS (disease)

Dementia

(AIDS dementia complex, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Brain, disease

Prion diseases

(Creutzfeldt-Jakob, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Nervous system, disease

Nervous system, disease

(Huntington's chorea, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Nervous system, disease

Pain

(acute, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mental and behavioral disorders

(agoraphobia, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Pain

Skin, disease

(allodynia, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mental and behavioral disorders

(attention deficit hyperactivity disorder, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mental and behavioral disorders

(autism, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Eating disorders

(binge, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mental and behavioral disorders

(bipolar disorder, manic-depressive, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Pain

(cancer, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Injury

(cerebral, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Development, mammalian postnatal

(child; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Nervous system, disease

(chorea, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Laryngitis

Nervous system, disease

Pain

(chronic, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Pharmaceutical tablets

(coated tablets; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mental and behavioral disorders

(delirium, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mental and behavioral disorders

(delusional, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mental and behavioral disorders

(dementia pugilistica, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Viral infection

(depression resulting from Borna virus, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Borna disease virus

(depression resulting from, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mental and behavioral disorders

(depression, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mitochondria

(disease, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Micturition

(disorders, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Tinnitus

(drug-induced, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Nervous system, disease

(dyskinesia, L-Dopa-induced, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Nervous system, disease

(dystonia, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Dementia

(frontal lobe, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Digestive tract, disease

(functional, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Digestive tract, disease

(gastroesophageal reflux, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Anxiety

(generalized, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Neurotransmission

(glutamatergic; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Injury

(head and neck, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Brain, disease

(hepatic encephalopathy, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Pain

(hyperalgesia, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Hyperkinesia

(in children, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Neuromuscular diseases

(in lower urinary tract, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Respiratory system, disease

(infection, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Prion diseases

(infectious, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Pain

(inflammatory pain, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Pharmaceutical injections

Pharmaceutical solutions

(injectable solns.; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Brain, disease

Eye, disease

Head and Neck, disease

Spinal cord, disease

(injury, treatment of; preparation of chromenones as metabotropic glutamate

receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Ear

(inner, disease, insult, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Intestine, disease

(irritable bowel syndrome, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Cardiac arrest

(ischemia resulting from, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Metabotropic glutamate receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (mGluR5; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Retinal disease

(macular degeneration, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Brain, disease

Prion diseases

(mad cow, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mental and behavioral disorders

(major depression, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Headache

(migraine, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Cognitive disorders

(mild, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Disease, animal

(mitochondrial, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Nerve, disease

(motor, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Urinary system, disease

(neuromuscular lower, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Pain

(neuropathic pain, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Pain

(nociceptive, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mental and behavioral disorders

(obsession-compulsion, treatment of; preparation of chromenones as

metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Injury

(ocular, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Oral drug delivery systems

Pharmaceutical liquids

(oral liqs.; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Rheumatoid arthritis

(pain related to, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Hypoxia

(perinatal, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Schizophrenia

(pos. or cognitive or neg. symptoms of, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Cognitive disorders

(post-operative, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mental and behavioral disorders

(post-traumatic stress disorder, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Analgesics

Anti-AIDS agents

Anti-Alzheimer's agents

Anti-infective agents

Anti-ischemic agents

Antiasthmatics

Anticonvulsants

Antidepressants

Antiglaucoma agents

Antimigraine agents

Antiobesity agents

Antiparkinsonian agents

Antipsychotics

Antitumor agents

Antiviral agents

Anxiolytics

Astrocyte

Cognition enhancers

Coronary bypass surgery

Drug tolerance

Gastrointestinal agents

Human

 ${\tt Immunosuppressants}$

Muscle relaxants

Nervous system agents

Neuroprotective agents

Pharmaceutical aerosols

Pharmaceutical capsules

Pharmaceutical excipients

Pharmaceutical tablets

Prophylaxis

Transplant and Transplantation

(preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Opioids

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Metabotropic glutamate receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mental and behavioral disorders

(psychosis, substance-induced, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Asthma

(reflux-related, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Leg, disease

Sleep disorders

(restless leg syndrome, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mental and behavioral disorders

(schizoaffective disorder, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Mental and behavioral disorders

(schizophreniform, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Anxiety

(social, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Tinnitus

(sound-induced, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Muscle, disease

(spasm, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Nervous system, disease

(spasticity, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Esophagus

(sphincter, gastroesophageal, disease, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Injury

(spinal cord, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT Nervous system, disease

(spinocerebellar ataxia, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the

prevention and treatment acute and/or chronic neurol. disorders) ΤТ Anxiety (substance-induced, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders) ΙT Nervous system, disease (tardive dyskinesia, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders) ΙT Epilepsy (temporal lobe, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders) ΙT Injury (trauma, treatment of; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders) ΤТ Alcoholism Alzheimer's disease Alzheimer's disease Amyotrophic lateral sclerosis Anxiety Asthma Bulimia Cognitive disorders Convulsion Dementia Down's syndrome Drug dependence Drug dependence Dyspepsia Eating disorders Epilepsy Eye, disease Fragile X syndrome Glaucoma Hypoglycemia Hypoxia Ischemia Lung, disease Mitral valve insufficiency Movement disorders Multiple sclerosis Multiple sclerosis Neoplasm Neuroglia, neoplasm Obesity Pain Parkinson's disease Pruritus Retinal disease Schizophrenia Sleep disorders Stroke Substance abuse Tinnitus Tinnitus Tobacco smoke Wernicke-Korsakoff syndrome (treatment of; preparation of chromenones as metabotropic glutamate receptor

modulators and their use in the prevention and treatment acute and/or

chronic neurol. disorders)

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ΤТ
    Dementia
        (vascular, treatment of; preparation of chromenones as metabotropic
       glutamate receptor modulators and their use in the prevention and
        treatment acute and/or chronic neurol. disorders)
    Transferrins
ΤТ
    RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
        (\tau-transferrins, - related disease, treatment of; preparation of
        chromenones as metabotropic glutamate receptor modulators and their use
        in the prevention and treatment acute and/or chronic neurol. disorders)
ΙT
    Amyloid
    RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
        (\beta-, - related disease, treatment of; preparation of chromenones as
       metabotropic glutamate receptor modulators and their use in the
       prevention and treatment acute and/or chronic neurol. disorders)
ΙT
    1035637-33-2
                   1044918-30-0
                                  1044918-31-1 1044918-32-2
                                                               1044918-33-3
    1044918-34-4
                   1044918-42-4
    RL: PRPH (Prophetic)
        (Chromenones and their use as modulators of metabotropic glutamate
        receptors, preparation, pharmaceutical compositions and use in the
        treatment of neurological disorders)
ΤT
    934966-12-8P
                  934966-13-9P
    RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
    preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
        (drug candidate and intermediate; preparation of chromenones as metabotropic
        glutamate receptor modulators and their use in the prevention and
        treatment acute and/or chronic neurol. disorders)
ΙT
    64267-25-0P
                  300839-05-8P
                                301196-68-9P
                                                304894-66-4P
                                                               306321-91-5P
    306321-92-6P
                   307550-27-2P
                                  313471-07-7P
                                                 325737-67-5P
                                                                325822-09-1P
    328022-10-2P
                   335419-13-1P
                                  380476-01-7P
                                                887698-18-2P
                                                                934966-01-5P
                   934966-03-7P
    934966-02-6P
                                 934966-04-8P
                                                934966-05-9P
                                                                934966-06-0P
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    934966-07-1P 934966-08-2P
                                  934966-09-3P 934966-10-6P
    934966-14-0P 934966-15-1P
                                  934966-17-3P 934966-18-4P
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    934966-72-0P
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    934966-82-2P
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    934966-92-4P
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    934967-43-8P
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    934967-53-0P
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                   934967-59-6P
    934967-58-5P
                                  934967-60-9P
                                                 934967-61-0P
                                                                934967-62-1P
    934967-63-2P
                   934967-64-3P
    RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
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(Uses)

(drug candidate; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

IT 3722-44-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

- IT 50-36-2, Cocaine 54-11-5, Nicotine 59-92-7, biological studies 300-62-9, Amphetamine
 - RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)
- IT 56-86-0, L-Glutamic acid, biological studies RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)

(preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

- IT 7440-70-2, Calcium, biological studies
 - RL: BSU (Biological study, unclassified); BIOL (Biological study) (preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)
- IT 75-26-3, 2-Bromopropane 108-46-3, Resorcinol, reactions 1655-07-8, Ethyl 2-oxocyclohexanecarboxylate
 - RL: RCT (Reactant); RACT (Reactant or reagent)
 (starting material; preparation of chromenones as metabotropic glutamate receptor modulators and their use in the prevention and treatment acute and/or chronic neurol. disorders)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- L3 87 ANSWERS CAPLUS COPYRIGHT 2008 ACS on STN
- CC 27-16 (Heterocyclic Compounds (One Hetero Atom)) Section cross-reference(s): 1, 63
- TI Preparation of novel 2-aminopyridine derivatives as potassium channel modulators
- ST aminopyridine prepn small conductance calcium activated potassium channel modulator; pyridinamine prepn small conductance calcium activated potassium channel modulator
- IT Amnesia

(age-related; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Nervous system, disease

(ataxia; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Mental and behavioral disorders

(attention deficit disorder; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Mental and behavioral disorders

(bipolar disorder; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Bladder, disease

(bladder hyperexcitability; preparation of novel 2-aminopyridine derivs. as

modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Bladder, disease

(bladder spasms; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Ischemia

(cerebral; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Intestine, disease

(constipation; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Mental and behavioral disorders

(depression; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Gastrointestinal motility

(disorder, dysmotility, hypomotility; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Gastrointestinal motility

(disorder, dysmotility; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Digestive tract, disease

(gastroesophageal reflux; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Intestine, disease

(ileus; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Sexual disorders

(impotence, male; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Bladder, disease

(incontinence; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Pain

(inflammatory pain; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Calcium-activated potassium channels

RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)

(intermediate and small conductance; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Intestine, disease

(irritable bowel syndrome; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Brain, disease

(ischemia; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Memory disorders

(memory retention defect; preparation of novel 2-aminopyridine derivs. as

modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Headache

(migraine; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Mental and behavioral disorders

(mood-affecting; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Nerve, disease

(motor; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Disease, animal

(myokymia; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Muscular dystrophy

(myotonic; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Pain

(neuropathic pain; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Diabetes mellitus

(non-insulin-dependent; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Bladder, disease

(obstruction; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Epilepsy

(petit mal; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Kidney, disease

(polycystic; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Parturition disorders

(premature parturition; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Aging, animal

Alopecia

Alzheimer's disease

Analgesics

Angina pectoris

Anti-Alzheimer's agents

Anti-inflammatory agents

Anti-ischemic agents

Antianginal agents

Antiarrhythmics

Antiasthmatics

Anticonvulsants

Antidepressants

Antidiabetic agents

Antidiarrheals

Antifibrotic agents

Antihypertensives Antimigraine agents Antiparkinsonian agents Antipsychotics Antitumor agents Anxiety Anxiolytics Asthma Brain, neoplasm Cardiac arrhythmia Cardiovascular agents Cardiovascular system, disease Chronic obstructive pulmonary disease Cognition enhancers Cognitive disorders Colitis Convulsion Coronary artery disease Coronary spasm Cystic fibrosis Dementia Digestive tract, disease Dysmenorrhea Epilepsy Gastrointestinal agents Hearing loss Human Hypertension Immunostimulants Immunosuppression Inflammatory bowel disease Intermittent claudication Ischemia Kidney, disease Laxatives Learning disorders Myocardial ischemia Narcolepsy Neoplasm Nervous system agents Parkinson's disease Pharmaceutical carriers Pharmaceutical excipients Prophylaxis Raynaud disease Respiratory system agents Seizures Sjogren syndrome Sleep apnea Sleep disorders Stroke Tocolytic agents Urogenital system, disease (preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in

IT Mental and behavioral disorders

treatment and prevention of diseases)

(psychosis; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Disease, animal

(responsive to modulation of SK channels; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Nose, disease

(rhinorrhea; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Diarrhea

(secretory; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Blood vessel, disease

(spasm; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Muscle relaxants

(spasmolytics; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Nervous system, disease

(spasticity; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Brain, disease

(trauma; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Nerve, disease

Pain

(trigeminal neuralgia; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Vision disorders

(vision loss; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT Mouth, disease

(xerostomia; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT 9004-10-8, Insulin, biological studies

RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)

(hyperinsulinemia; preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT 1026776-13-5P 1026776-14-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

(preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

IT 372-48-5, 2-Fluoropyridine 3863-11-4, 3,4-Difluoroaniline 72235-53-1, 3,4-Difluorobenzylamine 85118-01-0, 3,4-Difluorobenzyl bromide

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of novel 2-aminopyridine derivs. as modulators of small-conductance calcium-activated potassium channels useful in treatment and prevention of diseases)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> s inflammatory pain and rev/dt

L5 0 INFLAMMATORY PAIN AND REV/DT

=> s inflammatory pain/ti

L6 706 INFLAMMATORY PAIN/TI

=> s 16 and trpv3

L7 0 L6 AND TRPV3

=> s trpv3

L8 201 TRPV3

=> s 18 and pain

L9 52 L8 AND PAIN

=> d 19 ibib abs 1-52

L9 ANSWER 1 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:621215 CAPLUS

DOCUMENT NUMBER: 149:171764

TITLE: Citral sensing by TRANSient receptor potential

channels in dorsal root ganglion neurons

AUTHOR(S): Stotz, Stephanie C.; Vriens, Joris; Martyn, Derek;

Clardy, Jon; Clapham, David E.

CORPORATE SOURCE: Howard Hughes Medical Institute, Department of

Cardiology, Children's Hospital, Boston, MA, USA

SOURCE: PLoS One (2008), 3(5), No pp. given

CODEN: POLNCL; ISSN: 1932-6203

URL: http://www.plosone.org/article/info%3Adoi%2F10.13

71%2Fjournal.pone.0002082 Public Library of Science

PUBLISHER: Public Library of Science DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

AB Transient receptor potential (TRP) ion channels mediate key aspects of taste, smell, pain, temperature sensation, and pheromone detection. To deepen our understanding of TRP channel physiol., we require more diverse pharmacol. tools. Citral, a bioactive component of lemongrass, is commonly used as a taste enhancer, as an odorant in perfumes, and as an insect repellent. Here we report that citral activates TRP channels found in sensory neurons (TRPV1 and TRPV3, TRPM8, and TRPA1), and produces long-lasting inhibition of TRPV1-3 and TRPM8, while transiently blocking TRPV4 and TRPA1. Sustained citral inhibition is independent of

TRP

channel opening. Citral's actions as a partial agonist are not due to cysteine modification of the channels nor are they a consequence of citral's stereoisoforms. The isolated aldehyde and alc. cis and trans enantiomers (neral, nerol, geranial, and geraniol) each reproduce citral's actions. In juvenile rat dorsal root ganglion neurons, prolonged citral inhibition of native TRPV1 channels enabled the separation of TRPV2 and TRPV3 currents. We find that TRPV2 and TRPV3 channels are present in a high proportion of these neurons (94% respond to 2-aminoethyldiphenyl borate), consistent with our immunolabeling expts. and previous in situ hybridization studies. The TRPV1 activation requires residues in transmembrane segments two through four of the voltage-sensor

internal calcium concentration, but is state-dependent, developing only after

domain, a region previously implicated in capsaicin activation of TRPV1 and analogous menthol activation of TRPM8. Citral's broad spectrum and prolonged sensory inhibition may prove more useful than capsaicin for allodynia, itch, or other types of pain involving superficial

sensory nerves and skin.

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:573286 CAPLUS

DOCUMENT NUMBER: 149:49726

TITLE: ThermoTRP channels in nociceptors: taking a lead from

capsaicin receptor TRPV1

AUTHOR(S): Mandadi, Sravan; Roufogalis, Basil D.

CORPORATE SOURCE: Hotchkiss Brain Institute, Calgary, AB, T2N 4N1, Can.

SOURCE: Current Neuropharmacology (2008), 6(1), 21-38

CODEN: CNUEAN; ISSN: 1875-6190

URL: http://www.ingentaconnect.com/content/ben/cn/2008

/00000006/00000001

PUBLISHER: Bentham Science Publishers Ltd.

DOCUMENT TYPE: Journal; General Review; (online computer file)

LANGUAGE: English

A review. Nociceptors with peripheral and central projections express temperature sensitive transient receptor potential (TRP) ion channels, also called thermoTRP's. Chemosensitivity of thermoTRP's to certain natural compds. eliciting pain or exhibiting thermal properties has proven to be a good tool in characterizing these receptors. Capsaicin, a pungent chemical in hot peppers, has assisted in the cloning of the first thermoTRP, TRPV1. This discovery initiated the search for other receptors encoding the response to a wide range of temps. encountered by the body. Of these, TRPV1 and TRPV2 encode unique modalities of thermal pain when exposed to noxious heat. The ability of TRPA1 to encode noxious cold is presently being debated. The role of TRPV1 in peripheral inflammatory pain and central sensitization during chronic pain is well known. In addition to endogenous agonists, a wide variety of chemical agonists and antagonists have been discovered to activate and inhibit TRPV1. Efforts are underway to determine conditions under which agonist-mediated desensitization of TRPV1 or inhibition by antagonists can produce analgesia. Also, identification of specific second messenger mols. that regulate phosphorylation of TRPV1 has been the focus of intense research, to exploit a broader approach to pain treatment. The search for a role of TRPV2 in pain remains dormant due to the lack of suitable exptl. models. However, progress into TRPA1's role in pain has received much attention recently. Another thermoTRP, TRPM8, encoding for the cool sensation and also expressed in nociceptors, has recently been shown to reduce pain via a central mechanism, thus opening a novel strategy for achieving analgesia. The role of other thermoTRP's (TRPV3 and TRPV4) encoding for detection of warm temps. and expressed in nociceptors cannot be excluded. This review will discuss current knowledge on the role of nociceptor thermoTRPs in pain and therapy and describes the activator and inhibitor mols. known to interact with them and modulate their activity.

known to interact with them and modulate their activity.

REFERENCE COUNT: 247 THERE ARE 247 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L9 ANSWER 3 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:543349 CAPLUS

DOCUMENT NUMBER: 148:464924

TITLE: TRP channels and nociception

AUTHOR(S): Tominaga, Makoto

CORPORATE SOURCE: Section of Cell Signaling, Okazaki Institute for

Integrative Bioscience, National Institutes of Natural

Sciences, Okazaki, 444-8787, Japan

SOURCE: Cellular and Molecular Mechanisms for the Modulation of Nociceptive Transmission in the Peripheral and

Central Nervous Systems (2007), 23-40. Editor(s): Kumamoto, Eiichi. Research Signpost: Trivandrum,

India.

CODEN: 69KOVE; ISBN: 81-308-0162-0

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English

A review. Pain is initiated when noxious stimuli excite the peripheral terminals of specialized primary afferent neurons called nociceptors. A lot of mols. are involved in conversion of the noxious stimuli to the elec. signals in the nociceptor endings. Among them, TRP channels play important roles in detecting the noxious stimuli including chemical and thermal ones.

REFERENCE COUNT: 100 THERE ARE 100 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

ANSWER 4 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

2008:353105 CAPLUS ACCESSION NUMBER:

148:369982 DOCUMENT NUMBER:

Dihydroquinoline compounds for modulating calcium TITLE:

channel TRPV3 function, and use for the

treatment of pain

Mogan, Magdalene M.; Chong, Jayhong A.; Fanger, INVENTOR(S):

Christopher; Ripka, Amy; Larsen, Glenn R.; Zhen,

Xiaoguang; Underwood, Dennis John; Weigele, Manfred

PATENT ASSIGNEE(S): Hydra Biosciences Inc., USA

SOURCE: PCT Int. Appl., 130pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	TENT :	NO.			KIN	D	DATE			APPL	ICAT	ION I	NO.			ATE	
WO	2008	0335	 64		A1	_	2008	0320		WO 2	007-1	 US20	 195			0070	
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,
		CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FI,
		GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,
		KM,	KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,
	MG, MK, M PT, RO, M					MX,	MY,	MZ,	NA,	NG,	ΝI,	NO,	NΖ,	OM,	PG,	PH,	PL,
		PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ТJ,	TM,	TN,
		TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	ZA,	ZM,	ZW				
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,
		IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	ΤG,	BW,
		GH,	GM,	KΕ,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	AΖ,
	BY, KG, K					RU,	ТJ,	TM									
US	2008	0146	611		A1		2008	0619		US 2	007-	9012	53		2	00709	914
PRIORIT	Y APP	LN.	INFO	.:						US 2	006-	8450.	39P]	P 2	0060	915
										US 2	006-	8591	39P]	P 2	0061	115
OTHER S	OURCE	(S):			MAR	PAT	148:3	3699	82								

The application discloses compds. and methods for treating pain AB and other conditions related to TRPV3 using dihydroquinoline

derivative TRPV channel inhibitors. Compound preparation is included. 4

REFERENCE COUNT: THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L9 ANSWER 5 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:271658 CAPLUS

DOCUMENT NUMBER: 148:535310

TITLE: Investigation of TRPV1 loss-of-function phenotypes in

transgenic shRNA expressing and knockout mice

AUTHOR(S): Christoph, Thomas; Bahrenberg, Gregor; De Vry, Jean;

Englberger, Werner; Erdmann, Volker A.; Frech, Moritz;

Koegel, Babette; Roehl, Thomas; Schiene, Klaus; Schroeder, Wolfgang; Seibler, Jost; Kurreck, Jens

CORPORATE SOURCE: Preclinical Research and Development, Department of

Pharmacology, Gruenenthal, Aachen, 52078, Germany

SOURCE: Molecular and Cellular Neuroscience (2008), 37(3),

579-589

CODEN: MOCNED; ISSN: 1044-7431

PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

The function of the transient receptor potential vanilloid 1 (TRPV1) cation channel was analyzed with RNA interference technologies and compared to TRPV1 knockout mice. Expression of shRNAs targeting TRPV1 in transgenic (tg) mice was proven by RNase protection assays, and TRPV1 downregulation was confirmed by reduced expression of TRPV1 mRNA and lack of receptor agonist binding in spinal cord membranes. Unexpectedly, TRPV3 mRNA expression was upregulated in shRNAtg but downregulated in knockout mice. Capsaicin-induced [Ca2+]i changes in small diameter DRG neurons were significantly diminished in TRPV1 shRNAtg mice, and administration of capsaicin hardly induced hypothermia or nocifensive behavior in vivo. Likewise, sensitivity towards noxious heat was reduced. Interestingly, spinal nerve injured TRPV1 knockout but not shRNAtg animals developed mech. allodynia and hypersensitivity. The present study provides further evidence for the relevance of TRPV1 in neuropathic pain and characterizes RNA interference as valuable technique for drug target validation in pain research.

REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:208631 CAPLUS

DOCUMENT NUMBER: 148:304671

TITLE: TRP channels and nociception

AUTHOR(S): Tominaga, Makoto

CORPORATE SOURCE: Okazaki Institute fro Integrative Bioscience, National

Institute of Natural Sciences, Aichi, Japan

SOURCE: Igaku no Ayumi (2007), 223(9), 663-667

CODEN: IGAYAY; ISSN: 0039-2359

PUBLISHER: Ishiyaku Shuppan

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB A review discussing (1) capsaicin receptor TRPV1, (2) TRPV2 as TRP channel, (3) cold-Menthol-Receptor TRPM8, (4) TRPA1 and (5) TRPV3 and TRPV4.

L9 ANSWER 7 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1177636 CAPLUS

DOCUMENT NUMBER: 147:469238

TITLE: Fused piperidine derivatives as modulators of gated

ion channels, their preparation, pharmaceutical

compositions, and use in therapy

INVENTOR(S): Demnitz, Joachim; Ahring, Philip K. PATENT ASSIGNEE(S): Painceptor Pharma Corporation, Can.

SOURCE: PCT Int. Appl., 100pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	TENT				KIN	D	DATE			APPL	ICAT				D	ATE	
	2007				A1	_	2007	1018							2	0070	410
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	ΒA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,
		CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,
		GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,
		KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	MG,	MK,
		MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,
	RS, RU, S				SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,	TR,	TT,
	RS, RU, S TZ, UA, U																
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,
		IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,
		GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,
		BY,	KG,	KZ,	MD,	RU,	ΤJ,	TM									
US	US 20080021034						2008	0124		US 2	007-	7864	20		2	0070	410
PRIORITY	Y APP	.:						US 2	006-	7911.	25P		P 2	0060	410		
OTHER SO	OURCE	(S):			MAR	PAT	147:	4692	38								

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

The invention relates to fused piperidine derivs. of formula I or II, AB which are modulators of gated ion channels. In compds. I, the dotted bonds represent a single bond or double bond; X and Y are independently selected from N, C, and CH; R1 is selected from H, C1-4 alkyl, Ph, phenyl-C1-4 alkyl, C1-4 alkoxy-C1-4 alkyl, C1-4 alkylsulfonyl, etc.; R2 is absent, H, cyano, nitro, amino, CO2H, C1-4 alkoxycarbonyl, (un)substituted carbamoyl, and (un)substituted ureido; R3 is H, C1-4 alkyl, C1-4 alkoxycarbonyl, or C1-4 alkylcarbamoyl, or R2 and R3, together with X and Y, form a fused (un) substituted succinimide ring; and R4 and R5 are independently selected from halo, OH, CF3, nitro, amino, cyano, C1-4 alkyl, C1-4 alkoxy, phenoxy, Ph, and (un)substituted sulfamoyl; including salts, stereoisomers, rotamers, tautomers, and racemates thereof. In compds. II, the dotted bond is a single bond or double bond; Z is O or (un)substituted N; R6 is C1-4 alkyl; R7 is absent, H, or OH; R8 and R9 are H or form a single bond together; and R10, R11, and R12 are independently selected from H and OH; including salts, stereoisomers, rotamers, tautomers, and racemates thereof. The invention also relates to the preparation of I, pharmaceutical compns. comprising a compound I together with

pharmaceutically acceptable adjuvant, as well as to the use of the compns. for the treatment of pain, inflammatory disorders, neurol. disorders, or diseases associated with the genitourinary or gastrointestinal systems. Addition of Grignard reagent from α -bromostyrene to N-methyl-4-piperidinone followed by elimination and Diels-Alder reaction with Et acrylate resulted in the formation of octahydroisoquinoline III, which underwent ester hydrolysis and amidation with 3-aminopyridine to give fused piperidine IV. The compds. of the invention are modulators of gated ion channels, e.g., compound IV expressed an IC50 value above 50 μ M in an assay for antagonism of acid-sensing ion channels 1a (ASIC1a).

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 8 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1177464 CAPLUS

DOCUMENT NUMBER: 147:469227

TITLE: Indole derivatives as modulators of gated ion

channels, their preparation, pharmaceutical

compositions, and use in therapy

INVENTOR(S): Vohra, Rahul; Wei, Chang-Qing; Gan, Zhonghong;

Demnitz, Joachim; Ahring, Philip K. Painceptor Pharma Corporation, Can.

PATENT ASSIGNEE(S): Painceptor Pharma Corporation, C

SOURCE: PCT Int. Appl., 187pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

	PA7	CENT 1	. O <i>l</i>			KIN	D	DATE			APPL	ICAT	ION 1	NO.		D	ATE	
	WO	2007	1154	08		A1		2007	1018	,	 WO 2	007-	CA59	 4		2	0070	410
		W:	ΑE,	AG,	AL,	ΑM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	ΒZ,	CA,
			CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,
			GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,
			KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	MG,	MK,
			MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,
			RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,	TR,	TT,
	TZ, UA, U					US,	UZ,	VC,	VN,	ZA,	ZM,	ZW						
	RW: AT, BE, B					CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
	IS, IT, L					LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,
			ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,
			GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,
			BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM									
	US	2008	0004	282		A1		2008	0103		US 2	007-	7864	15		2	0070	410
	US	2008	0004	306		A1		2008	0103		US 2	007-	7864	19		2	0070	410
	US	2008	0004	272		A1		2008	0103		US 2	007-	7864.	39		2	0070	410
PRIOR	CTI	APP	LN.	INFO	.:						US 2	006-	7910	85P		P 2	0060	410
											US 2	006-	7911.	26P		P 2	0060	410
											US 2	006-	7911	75P		P 2	0060	410
											US 2	006-	7911.	23P		P 2	0060	411
OMITHE		TTD O D	(0)			NAT TO		1 47	1000	2.7								

OTHER SOURCE(S): MARPAT 147:469227

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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to indole derivs. of formula I, which are modulators of gated ion channels. In compds. I, X and Y together form (un)substituted 5- to 7-membered ring fused with the benzo ring; Z is methylcyclopentyl, CH2, O, NR3, or NOR3, where R3 is H, NH2, C1-4 alkylamino, C1-4 alkyl, C2-5 acyl, C1-4 alkylsulfonyl, (un)substituted benzyl, etc.; R1 is selected from H, C1-4 alkyl, Ph, phenyl-C1-4 alkyl, C1-4 alkoxy-C1-4 alkyl, C1-4 alkylsulfonyl, etc.; and R2 is selected from (un)substituted Ph, (un)substituted naphthyl, (un)substituted pyridinyl, and (un)substituted thienyl; including salts, stereoisomers, rotamers, tautomers, and racemates thereof. The invention also relates to the preparation of I, pharmaceutical compns. comprising a compound I together with

pharmaceutically acceptable adjuvant, as well as to the use of the compns. for the treatment of pain, inflammatory disorders, neurol. disorders, or diseases associated with the genitourinary or gastrointestinal systems. Bromination of isoquinoline followed by nitration,

N-methylation, and hydride reduction resulted in the formation of tetrahydroisoquinoline II, which underwent hydrogenation, condensation with chloral hydrate and hydroxylamine, and intramol. heterocyclization to yield isatin derivative III. Isatin III was condensed with hydroxylamine, coupled with phenylboronic acid, and cleaved at 160° in a microwave reactor to give nitrile IV. The compds. of the invention are modulators of gated ion channels, e.g., compound IV expressed an IC50 value below 10 μ M in an assay for antagonism of acid-sensing ion channels 1a (ASIC1a). REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1176220 CAPLUS

DOCUMENT NUMBER: 147:448653

TITLE: Tetrahydroisoquinoline derivatives as modulators of

gated ion channels, their preparation, pharmaceutical

compositions, and use in therapy

INVENTOR(S): Vohra, Rahul; Gan, Zhonghong; Wei, Chang-Qing; Price,

Stephen; Dyke, Hazel Joan; Dechaux, Elsa Amandine

PATENT ASSIGNEE(S): Painceptor Pharma Corporation, Can.

SOURCE: PCT Int. Appl., 151pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

GΙ

F	PATEN	T NO).			KIN	D	DATE			APPL	ICAT	ION :	NO.		D	ATE	
_ [∧	70 20	 0711	 1541	10		A1	_	2007	1018		 WO 2	007-	 CA59	 6		2	0070	410
	W	: <i>I</i>	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	ΒA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,
			CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,
		(GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,
		F	ΚN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	MG,	MK,
		ľ	4Ν,	MW,	MX,	MY,	MZ,	NA,	NG,	NΙ,	NO,	NΖ,	OM,	PG,	PH,	PL,	PT,	RO,
		F	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,	TR,	TT,
]	ΓZ,	UA,	UG,	US,	UΖ,	VC,	VN,	ZA,	ZM,	ZW						
	R	W: A	AΤ,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,
		IS,	ΙΤ,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	
		E	ЗJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML ,	MR,	ΝE,	SN,	TD,	ΤG,	BW,
		(GΗ,	GM,	KΕ,	LS,	MW,	${ m MZ}$,	NΑ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,
		E	ΒΥ,	KG,	KΖ,	MD,	RU,	ТJ,	$^{\mathrm{TM}}$									
Ţ	JS 20	0800	0042	282		A1		2008	0103		US 2	007-	7864	15		2	0070	410
	JS 20							2008				007-				_	0070	
_	JS 20					A1		2008	0103			007-					0070	
PRIORI	TY A	PPLN	1.]	INFO	.:							006-					0060	
												006-					0060	
												006-					0060	
											US 2	006-	7911	23P		P 2	0060	411
OTHER	SOUR	CE (S	3):			MAR:	PAT	147:	4486.	53								

^{*} STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to tetrahydroisoquinoline derivs. of formula I, which are modulators of gated ion channels. In compds. I, XY is (un)substituted -(CH2)4- or (un)substituted -CH2NHCH2CH2-; Z is C or S; R1 is selected from H, halo, amino, cyano, hydroxy, (un)substituted C1-4 alkyl, (un)substituted C1-4 alkoxy, aryl, 5- to 7-membered heteroaryl,

etc.; R2 is S, O, NH, N(OH), or N(O-C1-4 alkyl); R3 is H, OH, (un) substituted amino, (un) substituted C1-4 alkyl, (un) substituted C1-4alkoxy, aryl, or 5- to 7-membered heteroaryl; m is 0 or 1; L1 is a bond, O, (CH2)1-4, N(Ac), N(SO2-C1-4 alky1), or NH, where (CH2)1-4 may be interrupted by NH; L2 is a bond, O, CH2, or NH; and Ar is (un)substituted aryl, (un)substituted 5- to 7-membered heteroaryl, or (un)substituted C5-7 cycloalkyl; including salts, stereoisomers, rotamers, tautomers, and racemates thereof. The invention also relates to the preparation of I, pharmaceutical compns. comprising a compound I together with a pharmaceutically acceptable adjuvant, as well as to the use of the compns. for the treatment of pain, inflammatory disorders, neurol. disorders, or diseases associated with the genitourinary or gastrointestinal systems. Bromination of isoquinoline followed by nitration, N-ethylation, and hydride reduction resulted in the formation of tetrahydroisoquinoline II, which underwent hydrogenation, condensation with chloral hydrate and hydroxylamine, heterocyclization, and condensation with hydroxylamine to yield tetrahydroisoquinoline derivative III. Tetrahydroisoquinoline III was coupled with phenylboronic acid and cleaved at 160 °C in a microwave reactor to give nitrile IV. The compds. of the invention are modulators of gated ion channels, e.g., compound IV expressed IC50 value below 50 μM in an assay for antagonism of acid-sensing ion channels in Xenopus laevis oocytes.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 10 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1176219 CAPLUS

DOCUMENT NUMBER: 147:448637

TITLE: Indole derivatives as modulators of gated ion

channels, their preparation, pharmaceutical

compositions, and use in therapy

INVENTOR(S): Vohra, Rahul; Gan, Zhonghong; Price, Stephen; Dyke,

Hazel Joan

PATENT ASSIGNEE(S): Painceptor Pharma Corporation, Can.

SOURCE: PCT Int. Appl., 111pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PA:	TENT	NO.			KIN:	D	DATE			APPL	ICAT	ION I	. OV		D.	ATE	
WO	2007	1154	09		A1	_	2007	1018	,	WO 2	007-	CA59	5		2	0070	410
	W:	ΑE,	AG,	AL,	ΑM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,
		CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,
		GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚM,
		KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	MG,	MK,
		MN,	MW,	MX,	MY,	MΖ,	NA,	NG,	NΙ,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,
		RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,	TR,	TT,
		TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW						
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
		IS,	ΙΤ,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,
		GH,	GM,	ΚE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,
		BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM									
US	2008	0004	282		A1		2008	0103		US 2	007-	7864	15		2	0070	410
US	2008	0004	306		A1		2008	0103		US 2	007-	7864	19		2	0070	410
US	2008	0004	272		A1		2008	0103		US 2	007-	7864.	39		2	0070	410
PRIORIT	Y APP	LN.	INFO	. :						US 2	006-	7910	85P]	P 2	0060	410
										US 2	006-	7911.	26P]	P 2	0060	410
										US 2	006-	7911	75P]	P 2	0060	410

OTHER SOURCE(S): MARPAT 147:448637

GT

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

The invention relates to indole derivs. of formula I, which are modulators of gated ion channels. In compds. I, the dotted bonds represent single or double bonds; XY is (un)substituted -(CH2)4- or (un)substituted -CH2NHCH2CH2-; Z is CH2, CH, C(O), N, or NH; R1 is selected from H, (un)substituted C1-4 alkyl, and (un)substituted C1-4 alkoxy; R2 is H, C1-5 alkyl, NH2, C1-4 alkylthio, formyl, C1-4 alkoxyamino, etc.; L is a bond, O, CH2, or NH; and Ar is (un)substituted aryl, (un)substituted 5- to 7-membered heteroaryl, or (un)substituted C5-7 cycloalkyl; including salts, stereoisomers, rotamers, tautomers, and racemates thereof. The invention also relates to the preparation of I, pharmaceutical compns. comprising a compound I together with a pharmaceutically acceptable adjuvant, as well as to the use of the compns. for the treatment of pain, inflammatory disorders, neurol. disorders, or diseases associated with the genitourinary or gastrointestinal systems. Bromination of isoquinoline followed by nitration, N-ethylation, and hydride reduction resulted in the formation of tetrahydroisoquinoline II, which underwent Suzuki coupling with phenylboronic acid, hydrogenation, and heterocyclization with Et (methylthio) acetate to yield indole derivative III. Indole III was reduced with Raney nickel, condensed with N,N-dimethylformamide di-Me acetal, and condensed with ammonia to give enamine IV. The compds. of the invention are modulators of gated ion channels, e.g., compound IV expressed IC50 value below 50 μ M in an assay for antagonism of acid-sensing ion channels in Xenopus laevis oocytes. REFERENCE COUNT: THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

1.9 ANSWER 11 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

2007:1075875 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 147:444626

TITLE: Transient receptor potential V2 expressed in sensory

neurons is activated by probenecid

AUTHOR(S): Bang, Sangsu; Kim, Kyung Yoon; Yoo, Sungjae; Lee,

Sang-Heon; Hwang, Sun Wook

Korea University Graduate School of Medicine, Seoul, CORPORATE SOURCE:

136-705, S. Korea

Neuroscience Letters (2007), 425(2), 120-125 SOURCE:

CODEN: NELED5; ISSN: 0304-3940

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

Temperature-activated transient receptor potential ion channels (thermoTRPs) AΒ are

known to function as ambient temperature sensors and are also involved in peripheral pain sensation. The thermoTRPs are activated by a variety of chems., of which specific activators have been utilized to explore the physiol. of particular channels and sensory nerve subtypes. The use of capsaicin for TRPV1 is an exemplary case for nociceptor studies. In contrast, specific agents for another vanilloid subtype channel, TRPV2 have been lacking. Here, we show that probenecid is able to activate TRPV2 using electrophysiol. and calcium imaging techniques with TRPV2-expressing HEK293T cells. Five other sensory thermoTRPs-TRPV1, TRPV3, TRPV4, TRPM8 and TRPA1-failed to show a response to this drug in the same heterologous expression system, suggesting that

probenecid is a specific activator for TRPV2. Probenecid-evoked responses were also reproduced in a distinct subset of cultured trigeminal neurons that were responsive to 2-aminoethoxydiphenyl borate, a TRPV1-3 activator. The probenecid-sensitive neurons were mainly distributed in a medium to large-diameter population, in agreement with previous observations with TRPV2 immunolocalization. Under inflammation, probenecid elicited nociceptive behaviors in in vivo assays. These results suggest that TRPV2 is specifically activated by probenecid and that this chemical might be useful for investigation of pain-related TRPV2 function.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 12 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1029912 CAPLUS

DOCUMENT NUMBER: 147:365488

TITLE: Preparation of heterocyclic compounds as TRPV3

modulators

INVENTOR(S): Chong, Jayhong A.; Fanger, Christopher; Larsen, Glenn

R.; Lumma, William C.; Moran, Magdalene M.; Ripka, Amy; Underwood, Dennis John; Weigele, Manfred; Zhen,

Xiaoguang

PATENT ASSIGNEE(S): Hydra Biosciences, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 115pp., Cont.-in-part of U.S.

Ser. No. 431,942.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT	NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006	0270688 060626	A1 A1 A2 A9	20070913 20061130 20080522 20080731	US 2006-431942	20061115 20060509
=	AE, AG, AL CH, CN, CO GB, GD, GE KM, KN, KP MG, MK, MN PT, RO, RS	, AM, AT, , CR, CU, , GH, GM, , KR, KZ, , MW, MX, , RU, SC,	AU, AZ, CZ, DE, GT, HN, LA, LC, MY, MZ, SD, SE,	BA, BB, BG, BH, BR, DK, DM, DO, DZ, EC, HR, HU, ID, IL, IN, LK, LR, LS, LT, LU, NA, NG, NI, NO, NZ, SG, SK, SL, SM, SV, VC, VN, ZA, ZM, ZW	EE, EG, ES, FI, IS, JP, KE, KG, LY, MA, MD, ME, OM, PG, PH, PL,
	IS, IT, LT BJ, CF, CG GH, GM, KE BY, KG, KZ	, LU, LV, , CI, CM, , LS, MW,	MC, MT, GA, GN, MZ, NA,	DK, EE, ES, FI, FR, NL, PL, PT, RO, SE, GQ, GW, ML, MR, NE, SD, SL, SZ, TZ, UG, AP, EA, EP, OA	SI, SK, TR, BF, SN, TD, TG, BW, ZM, ZW, AM, AZ,
OTHER SOURCE		MADDAT	147.3654	US 2005-679436P US 2005-679438P US 2005-702584P US 2006-431942 US 2006-600514	P 20050509 P 20050725 A2 20060509

OTHER SOURCE(S): MARPAT 147:365488

GΙ

AB The title compds. with general formula of Ar-(X)n-CH(R)-C(=W)-Y [wherein Ar = (hetero)aryl; Y = Ph, OArl, SArl, or N(Rl)Arl; R = H or alkyl; X = CH2, O, S, CF2, C(CN)2, or (un)substituted NH; W = O, S, or NR2; n = 1 or 2; Arl = monocyclic or bicyclic (hetero)aralkyl or (hetero)aryl; Rl = H, (cyclo)alkyl, alkenyl, alkynyl, heterocyclyl, etc.; R2 = H or alkyl; or R1, N, and R2 form a ring; or R1, Arl, and N form form a ring fused to Arl], or solvates, hydrates, metabolites, prodrugs, or salts thereof were prepared as modulators of transient receptor potential cation channel subfamily V member 3 (TRPV3). For example, (2-benzothiazolylthio)acetic acid was reacted with 1,2,3,4-tetrahydroquinoline to give I (82%). I diminished pain phases associated with the formalin model.

L9 ANSWER 13 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

Ι

ACCESSION NUMBER: 2007:966625 CAPLUS

DOCUMENT NUMBER: 147:292253

TITLE: Methods and compositions for treating hyperalgesia

INVENTOR(S): Patapoutian, Ardem; Jegla, Timothy J.

PATENT ASSIGNEE(S): IRM LLC, A Delaware Limited Liability Company,

Bermuda; The Scripps Research Institute

SOURCE: PCT Int. Appl., 33pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PAT	TENT	NO.			KIN	D	DATE			APPL	ICAT	ION 1	NO.			ATE	
		2007 2007		~ —		A2 A3		2007 2007	0830	;	WO 2	007-	US46	40			0070	
		W:	,	,	,	,	,	AU, DE,	,	,	,	,	,	,	,	,	,	,
			GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,
				,		•	,	LK, NA,		•	•		,		•		•	•
			•		•	•		SG, VC,	•				SY,	TJ,	TM,	TN,	TR,	TT,
		RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	•	•	•	•	•	•
								MC, GN,			•	•	•		•			
								NA, TM,					UG,	ZM,	ZW,	AM,	AZ,	BY,
		2007	2175	12	ŕ	A1	·	2007	0830		AU 2	007-					0070	
PRIO:		2008 APP				A		2008	0926		IN 2 US 2						0080: 0060:	
3.0	 .							1			WO 2						0070	

AB This invention provides compds. which specifically inhibit TRPA1 but not other members of the thermoTRP ion channel family. Also provided in the invention are methods of using TRPA1-specific inhibitors to treat or alleviate pains mediated by noxious mechanosensation. The physiol. role of TRPA1 in mech. hyperalgesia was demonstrated in CHO cells

transfected with bradykinin B2 receptor and TRPA1. Following pretreatment with bradykinin these cells demonstrated a sensitized TRPA1 sensitized response.

ANSWER 14 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN 1.9

ACCESSION NUMBER: 2007:857076 CAPLUS

DOCUMENT NUMBER: 147:382453

TRP channels: Targets for the relief of pain TITLE: Levine, Jon D.; Alessandri-Haber, Nicole AUTHOR(S):

CORPORATE SOURCE: Departments of Oral and Maxillofacial Surgery and

Medicine and Division of Neurosciences, University of

California, San Francisco, CA, 94143-0440, USA Biochimica et Biophysica Acta, Molecular Basis of

Disease (2007), 1772(8), 989-1003

CODEN: BBADEX; ISSN: 0925-4439

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal; General Review

English LANGUAGE:

SOURCE:

A review. Patients with inflammatory or neuropathic pain AB experience hypersensitivity to mech., thermal and/or chemical stimuli. Given the diverse etiologies and mol. mechanisms of these pain

syndromes, an approach to developing successful therapies may be to target ion channels that contribute to the detection of thermal, mech. and chemical stimuli and promote the sensitization and activation of nociceptors. Transient Receptor Potential (TRP) channels have emerged as a family of evolutionarily conserved ligand-gated ion channels that contribute to the

detection of phys. stimuli. Six TRPs (TRPV1, TRPV2, TRPV3,

TRPV4, TRPM8 and TRPA1) have been shown to be expressed in primary afferent nociceptors, pain sensing neurons, where they act as

transducers for thermal, chemical and mech. stimuli. This short review focuses on their contribution to pain hypersensitivity associated

with peripheral inflammatory and neuropathic pain states.

THERE ARE 194 CITED REFERENCES AVAILABLE FOR REFERENCE COUNT: 194 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

ANSWER 15 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN L9

ACCESSION NUMBER: 2007:822522 CAPLUS

DOCUMENT NUMBER: 147:298032

TITLE: Differential expression of the capsaicin receptor

TRPV1 and related novel receptors TRPV3,

TRPV4 and TRPM8 in normal human tissues and changes in

traumatic and diabetic neuropathy

AUTHOR(S): Facer, Paul; Casula, Maria A.; Smith, Graham D.;

Benham, Christopher D.; Chessell, Iain P.; Bountra, Chas; Sinisi, Marco; Birch, Rolfe; Anand, Praveen

Peripheral Neuropathy Unit, Imperial College, CORPORATE SOURCE:

Hammersmith Hospital, London, UK

BMC Neurology (2007), 7, No pp. given CODEN: BNMEC8; ISSN: 1471-2377 SOURCE:

URL: http://www.biomedcentral.com/content/pdf/1471-

2377-7-11.pdf

PUBLISHER: BioMed Central Ltd.

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

Transient receptor potential (TRP) receptors expressed by primary sensory neurons mediate thermosensitivity, and may play a role in sensory pathophysiol. We previously reported that human dorsal root ganglion (DRG) sensory neurons co-expressed TRPV1 and TRPV3, and that these were increased in injured human DRG. Related receptors TRPV4, activated by warmth and eicosanoids, and TRPM8, activated by cool and menthol, have been characterised in pre-clin. models. However, the role

of TRPs in common clin. sensory neuropathies needs to be established. We have studied TRPV1, TRPV3, TRPV4, and TRPM8 in nerves (n = 14)and skin from patients with nerve injury, avulsed dorsal root ganglia (DRG) (n = 11), injured spinal nerve roots (n = 9), diabetic neuropathy skin (n = 8), non-diabetic neuropathic nerve biopsies (n = 6), their resp. control tissues, and human post mortem spinal cord, using immunohistol. methods. TRPV1 and TRPV3 were significantly increased in injured brachial plexus nerves, and TRPV1 in hypersensitive skin after nerve repair, while TRPV4 was unchanged. TRPM8 was detected in a few medium diameter DRG neurons, and was unchanged in DRG after avulsion injury, but was reduced in axons and myelin in injured nerves. In diabetic neuropathy skin, TRPV1 expressing sub- and intra-epidermal fibers were decreased, as was expression in surviving fibers. TRPV1 was also decreased in non-diabetic neuropathic nerves. Immunoreactivity for TRPV3 was detected in basal keratinocytes, with a significant decrease of TRPV3 in diabetic skin. TRPV1-immunoreactive nerves were present in injured dorsal spinal roots and dorsal horn of control spinal cord, but not in ventral roots, while TRPV3 and TRPV4 were detected in spinal cord motor neurons. The accumulation of TRPV1 and TRPV3 in peripheral nerves after injury, in spared axons, matches our previously reported changes in avulsed DRG. Reduction of TRPV1 levels in nerve fibers in diabetic neuropathy skin may result from the known decrease of nerve growth factor (NGF) levels. The role of TRPs in keratinocytes is unknown, but a relationship to changes in NGF levels, which is produced by keratinocytes, deserves investigation. TRPV1 represents a more selective therapeutic target than other TRPs for pain and hypersensitivity, particularly in post-traumatic neuropathy.

REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 16 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:703686 CAPLUS

DOCUMENT NUMBER: 147:118255

TITLE: Quinoline and quinazoline compositions and methods for

modulating gated ion channels and their preparation

INVENTOR(S): Vohra, Rahul; Babinski, Kazimierz; Brochu, Jean-Louis;

Ntirampebura, Deogratias; Wei, Chang-Qing; Zamboni,

Robert Joseph

PATENT ASSIGNEE(S): Painceptor Pharma Corporation, Can.

SOURCE: PCT Int. Appl., 155pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007071055	A1	20070628	WO 2006-CA2105	20061221
W: AE, AG, AL,	AM, AT,	AU, AZ,	BA, BB, BG, BR, BW, B	BY, BZ, CA, CH,
CN, CO, CR,	CU, CZ,	DE, DK,	DM, DZ, EC, EE, EG, H	ES, FI, GB, GD,
GE, GH, GM,	GT, HN,	HR, HU,	ID, IL, IN, IS, JP, F	KE, KG, KM, KN,
KP, KR, KZ,	LA, LC,	LK, LR,	LS, LT, LU, LV, LY, N	MA, MD, MG, MK,
MN, MW, MX,	MY, MZ,	NA, NG,	NI, NO, NZ, OM, PG, B	PH, PL, PT, RO,
RS, RU, SC,	SD, SE,	SG, SK,	SL, SM, SV, SY, TJ,	IM, TN, TR, TT,
TZ, UA, UG,	US, UZ,	VC, VN,	ZA, ZM, ZW	
RW: AT, BE, BG,	CH, CY,	CZ, DE,	DK, EE, ES, FI, FR, (GB, GR, HU, IE,
IS, IT, LT,	LU, LV,	MC, NL,	PL, PT, RO, SE, SI, S	SK, TR, BF, BJ,
CF, CG, CI,	CM, GA,	GN, GQ,	GW, ML, MR, NE, SN,	ID, TG, BW, GH,
GM, KE, LS,	MW, MZ,	NA, SD,	SL, SZ, TZ, UG, ZM, Z	ZW, AM, AZ, BY,
KG, KZ, MD,	RU, TJ,	TM		

AU 2006329202		A1	2	2007	0628		AU	2006	-3292	02		2	0061	221
CA 2634491		A1	2	2007	0628		CA	2006	-2634	491		2	0061	221
US 20070197509)	A1	2	2007	0823		US	2006	-6436	40		2	0061	221
EP 1968968		A1	2	2008	0917		ΕP	2006	-8405	32		2	0061	221
R: AT, BE	BG,	CH, C	CY,	CZ,	DE,	DK,	EE	E, ES	, FI,	FR,	GB,	GR,	HU,	ΙE,
IS, I	, LI,	LT,	LU,	LV,	MC,	NL,	PΙ	, PT	, RO,	SE,	SI,	SK,	TR,	AL,
BA, HI	R, MK,	RS												
MX 200807889		A	2	2008	0731		MΧ	2008	-7889			2	0800	618
KR 2008089416		А	2	2008	1006		KR	2008	-7176	29		2	0080	718
IN 2008DN06306)	A	2	2008	1024		ΙN	2008	-DN63	06		2	0800	718
PRIORITY APPLN. IN	'O.:						US	2005	-7532	01P		P 2	0051	221
							WO	2006	-CA21	05		W 2	0061	221
OTHER SOURCE(S).		MADD	ΔТ 1	17.	1182	55								

OTHER SOURCE(S): MARPAT 147:118255

GΙ

AΒ Disclosed are quinoline and quinazoline compds. of formula I, which modulate the activity of the gated ion channels compds. that modulate these gated ion channels are useful in the treatment of diseases and disorders related to pam, inflammation, the neurol. system, the gastrointestinal system and genitourinary system. The preferred compds. include quinoline or quinazoline derivs. substituted at the 4- position via N(H), C(O) or O moieties. Compds. of formula I wherein dashed line is single or double bond, wherein when the dashed lines is single bond, N of the ring may be bond to H and R1; R1, R3 and R4 are independently H, (un) substituted amine, CN, NO2, CO2H, and, halo, etc.; R2 is H, (un) substituted amino, amide, halo, NO2, (un) substituted aryl, etc.; R5 is N, C and CH; and their pharmaceutically acceptable salts, enantiomers, stereoisomers, rotamers, tautomers, diastereoisomers, and racemates thereof, are claimed. Example compound II was prepared by substitution of 4-chloro-2-methylquinoline with 1-benzylpiperidin-4-ol. All the invention compds. were evaluated for their gated ion channel modulatory activity. REFERENCE COUNT: THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

II

L9 ANSWER 17 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:671798 CAPLUS

DOCUMENT NUMBER: 147:51037

TITLE: Genetic polymorphisms associated with an increased

risk of somatosensory disorders and their use in diagnosis, prognosis, and selection of therapies

INVENTOR(S): Diatchenko, Luda; Maixner, William

PATENT ASSIGNEE(S): The University of North Carolina at Chapel Hill, USA

SOURCE: PCT Int. Appl., 164 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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PATENT NO.
                                    APPLICATION NO. DATE
                      KIND DATE
    _____
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                                         _____
                                                               _____
    WO 2007070252
                      A2 20070621 WO 2006-US45757
                                                              20061129
    WO 2007070252
                       A3 20071221
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN,
            KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK,
            MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
            RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
            TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
            CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
            GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
            KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
                       A1 20070621 CA 2006-2631675
A2 20080806 EP 2006-848638
    CA 2631675
                                                              20061129
                       A1
                                                             20061129
    EP 1951910
        R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,
            BA, HR, MK, RS
PRIORITY APPLN. INFO.:
                                         US 2005-740937P
                                                           P 20051130
                                                            P 20060623
                                         US 2006-815982P
                                                         W 20061129
                                         WO 2006-US45757
```

Methods of predicting effective pharmacol. therapies for a subject afflicted with a somatosensory disorder by determining a genotype of the subject

with or without determination of psychosocial and/or neurol. assessments of the subject are provided. Methods of predicting susceptibility of a subject to develop somatosensory disorders by determining a genotype of the subject with

or without determination of psychosocial and/or neurol. assessments of the subject

are further provided.

ANSWER 18 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:616985 CAPLUS

DOCUMENT NUMBER: 147:70137

Increased TRPA1, TRPM8, and TRPV2 expression in dorsal TITLE:

root ganglia by nerve injury

AUTHOR(S): Frederick, J.; Buck, M. E.; Matson, D. J.; Cortright,

D. N.

CORPORATE SOURCE: Western Connecticut State University, Danbury, CT,

06810, USA

Biochemical and Biophysical Research Communications SOURCE:

(2007), 358(4), 1058-1064 CODEN: BBRCA9; ISSN: 0006-291X

PUBLISHER: Elsevier DOCUMENT TYPE: Journal LANGUAGE: English

Thermosensitive TRP channels display unique thermal responses, suggesting distinct roles mediating sensory transmission of temperature However, whether relative expression of these channels in dorsal root ganglia (DRG) is altered in nerve injury is unknown. The authors developed a multiplex RNase protection assay (RPA) to quantify rat TRPV1, TRPV2, TRPV3 , TRPV4, TRPA1, and TRPM8 RNA levels in DRG. The authors used the multiplex RPA to measure thermosensitive TRP channel RNA levels in DRG from RTX-treated rats (300 $\mu g/kg$) or rats with unilateral sciatic nerve chronic constriction injury (CCI). TRPV1 and TRPA1 RNA were significantly decreased in DRG from RTX-treated rats, indicating functional colocalization of TRPA1 and TRPV1 in sensory nociceptors. In DRG from CCI rats, TRPA1, TRPV2, and TRPM8 RNA showed slight but significant increases

ipsilateral to peripheral nerve injury. The authors' findings support the hypothesis that increased TRP channel expression in sensory neurons may contribute to mech. and cold hypersensitivity.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 19 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN L9

2007:590735 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 147:30964

TITLE: Pyrroloisoguinolines and their preparation,

compositions and methods for modulating gated ion

INVENTOR(S): Vohra, Rahul; Demnitz, Joachim; Ahring, Philip K.;

Gan, Zhonghong; Gill, Nachhattarpal

PATENT ASSIGNEE(S): Painceptor Pharma Corporation, Can.

SOURCE: PCT Int. Appl., 118pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT	NO.			KIN	D	DATE			APP1	LICAT	ION :			D.	ATE	
WO	2007	0596	08		A1	_	2007	0531		WO 2	2006-				2	 0061	122
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AΖ,	BA,	BB,	, BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	, EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
		GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	, IN,	IS,	JP,	ΚE,	KG,	KM,	KN,
		ΚP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	, LU,	LV,	LY,	MA,	MD,	MG,	MK,
		MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	, NZ,	OM,	PG,	PH,	PL,	PT,	RO,
		RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	, SV,	SY,	ΤJ,	TM,	TN,	TR,	TT,
		TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM	, ZW						
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	, ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,
		IS,	ΙΤ,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	, RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	, MR,	ΝE,	SN,	TD,	ΤG,	BW,	GH,
		GM,	ΚE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ	, TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,
					RU,												
AU	2006	3175	45		A1		2007	0531		AU 2	2006-	3175	45		2	0061	122
CA	2630	617			A1		2007	0531		CA 2	2006-	2630	617		2	0061	122
US	2007	0191	418		A1		2007	0816		US 2	2006-	6039	46		2	0061	122
EP	1957	486			A1		2008	0820		EP 2	2006-	8047	55		2	0061	122
	R:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	, ES,	FI,	FR,	GB,	GR,	HU,	IE,
		IS,	ΙΤ,	LI,	LT,	LU,	LV,	MC,	ΝL,	PL,	, PT,	RO,	SE,	SI,	SK,	TR,	AL,
	BA, HR, M																
KR	2008	0707	49		А		2008	0730		KR 2	2008-	7146	53		2	0800	617
IN	2008	DN05	376		Α		2008	8080		IN 2	2008-	DN53	76		2	0800	620
PRIORIT	Y APP	LN.	INFO	.:						US 2	2005-	7396	00P		P 2	0051	123
										WO 2	2006-	CA18	97	1	W 2	0061	122
OTHER SO	OURCE	(S):			MAR	PAT	147:	3096	4								

GΙ

Pyrrolo-isoquinoline compds. according to formula I is disclosed. Compds. AΒ of formula I wherein dashed lines are single or double bonds; R1 is H, alkyl, alkoxy-alkyl, hydroxyalkyl, alkoxycarbonyl-alkyl, etc.; R2 is H, OH, alkyl, alkenyl, (CH2)1-4CO2H, CO-C1-4 alkyl, and SO2-C1-4 alkyl; R3 is H, OH, alkyl, acyl, benzyl, CO2H, CONMe2, OPh, OCF3, alkoxy, etc.; R4 and R5 are independently halo, CF3, NO2, NH2, CN, OH, alkoxy, PhO, Ph, SO2NH2 and derivs.; and their pharmaceutically acceptable salts, enantiomers, stereoisomers, rotamers, tautomers, diastereoisomers, and racemates thereof, are claimed. These compds. and their pharmaceutical acceptable salts are used for modulating gated ion channels in order to treat pain, inflammatory disorders, neurol. disorders, or diseases associated with the genitourinary or gastrointestinal systems. compound II was prepared by a multistep procedure (procedure given). All the invention compds. were evaluated for their ASIC antagonistic activity. From the assay, it was determined that compound II exhibited IC50 values of $0.10-0.20 \mu M.$

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 20 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:538923 CAPLUS

DOCUMENT NUMBER: 146:521819

TITLE: Dihydroquinazolinone compounds for modulating

TRPV3 function and their preparation,

pharmaceutical compositions and use in the treatment

of pain and related disorders

INVENTOR(S): Chong, Jayhong A.; Fanger, Christopher; Larsen, Glenn

R.; Lumma, William C., Jr.; Moran, Magdalene M.;

Ripka, Amy; Underwood, Dennis John; Weigele, Manfred;

Zhen, Xiaoguang

PATENT ASSIGNEE(S): Hydra Biosciences, Inc., USA

SOURCE: PCT Int. Appl., 202pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.				KIND		DATE			APPL	ICAT	DATE					
WO 2007056124 WO 2007056124				A2 20070518 A3 20070726		WO 2006-US42930						20061103				
₩:	CN,	CO,	CR,	CU,	CZ,	AU, DE, HR,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,

KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA AU 2006311883 20070518 AU 2006-311883 Α1 CA 2628441 20070518 CA 2006-2628441 20061103 Α1 US 20070179164 20070802 US 2006-592783 Α1 20061103 EP 1954283 A2 20080813 EP 2006-836869 20061103 AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR Р PRIORITY APPLN. INFO.: US 2005-733384P 20051104 US 2006-799212P Ρ 20060509 US 2006-838609P Ρ 20060818 WO 2006-US42930 W 20061103

OTHER SOURCE(S): MARPAT 146:521819

GΙ

AB The application relates to compds. of formula I and methods for treating pain and other conditions related to TRPV3. Compds. of formula I wherein Ar and Ar' are independently (hetero)aryl; G1 and G2 are independently lower alkyl; G1G2 taken together to form (hetero)aryl fused to the pyrimidinone ring; L is a linker having 1-3 atoms; and their salts, solvates, hydrated, oxidative metabolites and prodrugs thereof, are claimed. Example compound II was prepared by condensation of 2-methyl-4H-3,1-benzoxazin-4-one with 3-trifluoromethylaniline; the resulting 2-methyl-3-(3-trifluoromethylphenyl)quinazolin-4(3H)-one underwent condensation with 2-hydroxy-3-methoxybenzaldehyde. All the invention compds. were evaluated for their TRPV3 modulatory activity.

L9 ANSWER 21 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:335876 CAPLUS

DOCUMENT NUMBER: 147:273373

TITLE: Nociception and TRP channels

AUTHOR(S): Tominaga, M.

CORPORATE SOURCE: Section of Cell Signaling, Okazaki Institute for

Integrative Bioscience, National Institutes of Natural

Sciences, Okazaki, 444-8787, Japan

SOURCE: Handbook of Experimental Pharmacology (2007),

179 (Transient Receptor Potential (TRP) Channels),

489-505

CODEN: HEPHD2; ISSN: 0171-2004

PUBLISHER: Springer GmbH

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. Pain is initiated when noxious stimuli excite the

peripheral terminals of specialized primary afferent neurons called

nociceptors. Many mols. are involved in conversion of the noxious stimuli to the elec. signals in the nociceptor endings. Among them, TRP channels

play important roles in detecting noxious stimuli.

REFERENCE COUNT: 85 THERE ARE 85 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 22 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:177123 CAPLUS

DOCUMENT NUMBER: 146:202886

TITLE: The identification of two novel ion channels,

TRPV3 and TRPV4 and the elucidation of their

roles in temperature and pain sensation

AUTHOR(S): Lee, Hyosang

CORPORATE SOURCE: Johns Hopkins Univ., Baltimore, MD, USA

SOURCE: (2006) 147 pp. Avail.: UMI, Order No. DA3213744

From: Diss. Abstr. Int., B 2006, 67(4), 1851

DOCUMENT TYPE: Dissertation

LANGUAGE: English

AB Unavailable

L9 ANSWER 23 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1202500 CAPLUS

DOCUMENT NUMBER: 145:505435

TITLE: Benzothiazole derivatives and related compounds for

modulating TRPV3 function and their

preparation, pharmaceutical compositions and their use

for treatment of pain

INVENTOR(S): Chong, Jayhong A.; Fanger, Christopher; Moran,

Magdalena M.; Underwood, Dennis John; Zhen, Xiaoguang; Ripka, Amy; Weigele, Manfred; Lumma, William C., Jr.;

Larsen, Glenn R.

PATENT ASSIGNEE(S): Hydra Biosciences, Inc., USA

SOURCE: PCT Int. Appl., 237pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 2006122156 WO 2006122156	A2 20061 A3 20070		20060509
W: AE, AG, AL	, AM, AT, AU,	AZ, BA, BB, BG, BR, BW,	BY, BZ, CA, CH,
CN, CO, CR	, CU, CZ, DE,	DK, DM, DZ, EC, EE, EG,	ES, FI, GB, GD,
GE, GH, GM	, HR, HU, ID,	IL, IN, IS, JP, KE, KG,	KM, KN, KP, KR,
KZ, LC, LK	, LR, LS, LT,	LU, LV, LY, MA, MD, MG,	MK, MN, MW, MX,
MZ, NA, NG	, NI, NO, NZ,	OM, PG, PH, PL, PT, RO,	RU, SC, SD, SE,
SG, SK, SL	, SM, SY, TJ,	TM, TN, TR, TT, TZ, UA,	UG, US, UZ, VC,
VN, YU, ZA	, ZM, ZW		
RW: AT, BE, BG	, CH, CY, CZ,	DE, DK, EE, ES, FI, FR,	GB, GR, HU, IE,
IS, IT, LT	, LU, LV, MC,	NL, PL, PT, RO, SE, SI,	SK, TR, BF, BJ,

CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,

GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM AU 2006244074 20061116 AU 2006-244074 Α1 20060509 20061116 CA 2006-2608194 CA 2608194 Α1 20060509 EP 1888575 20080220 EP 2006-759445 A2 20060509 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR 20080730 CN 101233132 Α CN 2006-80025106 20080109 P 20050509 PRIORITY APPLN. INFO.: US 2005-679436P US 2005-679438P P 20050509 US 2005-702584P P 20050725 WO 2006-US17995 W 20060509

OTHER SOURCE(S): MARPAT 145:505435

GΙ

$$Ar \xrightarrow{X} Y$$

The application relates to compds. of formula I and methods for treating pain and other conditions related to TRPV3. Compds. of formula I wherein Ar is (hetero)aryl; Y is Ph, (hetero)arylalkyloxy, (hetero)aryloxy, (hetero)arylalkylthio, (hetero)arylthio, (hetero)arylalkylamino, (hetero)arylamino, etc.; R is H and lower alkyl; X is CH2, O, S, NH and derivs., CF2, C(CN)2; W is O, S and NH and derivs.; n is 1; when X is CH2 n is 1 and 2; and their pharmaceutically acceptable salts, solvates, oxidative metabolites, and prodrugs thereof are claimed. Example compound II was prepared by thioetherification of N-(chloroacetyl)-8-methyl-1,2,3,4-tetrahydroquinoline with 5-chloro-2-mercaptobenzothiazole. All the invention compds. were evaluated for their TRPV3 inhibitory activity. Several of the tested compds. exhibited IC50 values of 1000 nM or less. Example compound II exhibited an IC50 value of < 0.2 μM .

L9 ANSWER 24 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:811801 CAPLUS

DOCUMENT NUMBER: 145:284902

TITLE: More than cool: Promiscuous relationships of menthol

and other sensory compounds

AUTHOR(S): Macpherson, Lindsey J.; Hwang, Sun Wook; Miyamoto,

Takashi; Dubin, Adrienne E.; Patapoutian, Ardem;

Story, Gina M.

CORPORATE SOURCE: Department of Cell Biology, The Scripps Research

Institute, La Jolla, CA, 92037, USA

SOURCE: Molecular and Cellular Neuroscience (2006), 32(4),

335 - 343

CODEN: MOCNED; ISSN: 1044-7431

PUBLISHER: Elsevier DOCUMENT TYPE: Journal LANGUAGE: English

Several temperature-activated transient receptor potential (thermoTRP) ion AB channels are the mol. receptors of natural compds. that evoke thermal and pain sensations. Menthol, popularly known for its cooling effect, activates TRPM8 - a cold-activated thermoTRP ion channel. However, human physiol. studies demonstrate a paradoxical role of menthol in modulation of warm sensation, and here, we show that menthol also activates heat-activated TRPV3. We further show that menthol inhibits TRPA1, potentially explaining the use of menthol as an analgesic. Similar to menthol, both camphor and cinnamaldehyde (initially reported to be specific activators of TRPV3 and TRPA1, resp.) also modulate other thermoTRPs. Therefore, we find that many "sensory compds." presumed to be specific have a promiscuous relationship with thermoTRPs.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 25 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:343936 CAPLUS

DOCUMENT NUMBER: 144:382035

Compositions and therapeutic methods using cyclic and TITLE:

heterocyclic compound gated ion channel modulators

Babinski, Kazimierz; Szarek, Walter A.; Vohra, Rahul; INVENTOR(S):

Varming, Thomas; Ahring, Philip K.; Dyhring Joergensen, Tino; Blackburn-Munro, Gordon John

Painceptor Pharma Corp., Can.; Neurosearch A/S PATENT ASSIGNEE(S):

SOURCE: PCT Int. Appl., 133 pp.

CODEN: PIXXD2

Patent DOCUMENT TYPE: LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION: DATENT NO

PATENT NO.					KIND DATE				APPL	ICAT	ION I	NO.	DATE					
	2006038070 2006038070							 WO 2	 005-	 IB26	20050330							
	₩:	AE, CN, GE, LK, NO, SY, AT, IS, CG,	AG, CO, GH, LR, NZ, TJ, BE, IT, CI,	AL, CR, GM, LS, OM, TM, BG, LT, CM,	AM, CU, HR, LT, PG, TN, CH, LU, GA,	AT, CZ, HU, LU, PH, TR, CY, MC,	AU, DE, ID, LV, PL, TT, CZ, NL, GQ, SD,	AZ, DK, IL, MA, PT, TZ, DE, PL, GW,	BA, DM, IN, MD, RO, UA, DK, PT, ML,	DZ, IS, MG, RU, UG, EE, RO, MR,	EC, JP, MK, SC, US, ES, SE, NE,	EE, KE, MN, SD, UZ, FI, SI, SN,	EG, KG, MW, SE, VC, FR, SK, TD,	ES, KP, MX, SG, VN, GB, TR,	FI, KR, MZ, SK, YU, GR, BF, BW,	GB, KZ, NA, SL, ZA, HU, BJ, GH,	GD, LC, NI, SM, ZM, IE, CF, GM,	ZW
	KZ, MD, RU, 2561993 1734962 R: AT, BE, BG,		TJ, TM A1 20060413 A2 20061227 CH, CY, CZ, DE,			CA 2005-2561993 EP 2005-805035 DK, EE, ES, FI, FR, PL, PT, RO, SE, SI,					20050330 GB, GR, HU, IE,							
	2007 2007 Y APP	HR, 0004 5306	LV, 680	MK,	YU A1	·	MC, 2007 2007	0104		US 2 JP 2 US 2 US 2	·	9623 5056 5580 5640	9 76 59P 63P		2 2 P 2 P 2	AL, 0050, 0050, 0040, 0040,	330 330 330 420	
HER SOURCE(S):				MARI	РΑТ	144:	3820	35										

MARPAT 144:382035 OTHER SOURCE(S):

AB The invention discloses compns. and therapeutic methods using cyclic and heterocyclic compound gated ion channel modulators. Tested compds. include e.g. I.

L9 ANSWER 26 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1324927 CAPLUS

DOCUMENT NUMBER: 144:101461

TITLE: NGF rapidly increases membrane expression of TRPV1

Ι

heat-gated ion channels

AUTHOR(S): Zhang, Xuming; Huang, Jiehong; McNaughton, Peter A.

CORPORATE SOURCE: Department of Pharmacology, University of Cambridge,

Cambridge, UK

SOURCE: EMBO Journal (2005), 24(24), 4211-4223

CODEN: EMJODG; ISSN: 0261-4189

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal LANGUAGE: English

AB Nociceptors, or pain-sensitive receptors, are unique among sensory receptors in that their sensitivity is increased by noxious stimulation. This process, called sensitization or hyperalgesia, is mediated by a variety of proinflammatory factors, including bradykinin, ATP and NGF, which cause sensitization to noxious heat stimuli by enhancing the membrane current carried by the heat- and capsaicin-gated ion channel, TRPV1. Several different mechanisms for sensitization of TRPV1 have been proposed. Here we show that NGF, acting on the TrkA receptor, activates a signaling pathway in which PI3 kinase plays a crucial early role, with Src kinase as the downstream element which binds to and phosphorylates TRPV1. Phosphorylation of TRPV1 at a single tyrosine residue, Y200, followed by insertion of TRPV1 channels into the surface membrane, explains most of the rapid sensitizing actions of NGF.

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 27 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:298408 CAPLUS

DOCUMENT NUMBER: 142:314533

TITLE: Increased capsaicin receptor TRPV1 in skin nerve

fibres and related vanilloid receptors TRPV3 and TRPV4 in keratinocytes in human breast

pain

AUTHOR(S): Gopinath, Preethi; Wan, Elaine; Holdcroft, Anita;

Facer, Paul; Davis, John B.; Smith, Graham D.;

Bountra, Chas; Anand, Praveen

CORPORATE SOURCE: Peripheral Neuropathy Unit, Hammersmith Hospital,

Faculty of Medicine, Imperial College London, London,

IIK

SOURCE: BMC Women's Health (2005), 5, No pp. given

CODEN: BWHMAY; ISSN: 1472-6874

URL: http://www.biomedcentral.com/content/pdf/1472-

6874-5-2.pdf

PUBLISHER: BioMed Central Ltd.

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

AB Background: Breast pain and tenderness affects 70% of women at some time. These symptoms have been attributed to stretching of the nerves with increase in breast size, but tissue mechanisms are poorly understood. Methods: Eighteen patients (n = 12 breast reduction and n = 6breast reconstruction) were recruited and assessed for breast pain by clin. questionnaire. Breast skin biopsies from each patient were examined using immunohistol. methods with specific antibodies to the capsaicin receptor TRPV1, related vanilloid thermoreceptors TRPV3 and TRPV4, and nerve growth factor (NGF). Results: TRPV1-pos. intra-epidermal nerve fibers were significantly increased in patients with breast pain and tenderness (TRPV1 fibers / mm epidermis, median [range] - no pain group, n=8, 0.69 [0-1.27]; pain group, n=10, 2.15 [0.77 - 4.38]; p=0.0009). Nerve Growth Factor, which up-regulates TRPV1 and induces nerve sprouting, was present basal keratinocytes: some breast pain specimens also showed NGF staining in supra-basal keratinocytes. TRPV4-immunoreactive fibers were present in sub-epidermis but not significantly changed in painful breast tissue. Both TRPV3 and TRPV4 were significantly increased in keratinocytes in breast pain tissues; (TRPV3, median [range] - no pain group, n=6, 0.75 [0-2]; pain group, n = 11, 2 [1 - 3], p=0.008; TRPV4, median [range] - no paingroup, n = 6, [0-1]; pain group, n=11, 1 [0.5 - 2], p=0.014). Conclusions: Increased TRPV1 intra-epidermal nerve fibers could represent collateral sprouts, or re-innervation following nerve stretch and damage by polymodal nociceptors. Selective TRPV1-blockers may provide new therapy in breast pain. The role of TRPV3 and TRPV4 $\,$ changes in keratinocytes deserve further study.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 28 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:176855 CAPLUS

DOCUMENT NUMBER: 142:237148

TITLE: Impaired Thermosensation in Mice Lacking TRPV3

, a Heat and Camphor Sensor in the Skin

AUTHOR(S): Moqrich, Aziz; Hwang, Sun Wook; Earley, Taryn J.;

Petrus, Matt J.; Murray, Amber N.; Spencer, Kathryn S. R.; Andahazy, Mary; Story, Gina M.; Patapoutian, Ardem

CORPORATE SOURCE: Department of Cell Biology, Scripps Research

Institute, La Jolla, CA, 92037, USA

SOURCE: Science (Washington, DC, United States) (2005),

307(5714), 1468-1472

CODEN: SCIEAS; ISSN: 0036-8075

PUBLISHER: American Association for the Advancement of Science

DOCUMENT TYPE: Journal LANGUAGE: English

AB Environmental temperature is thought to be directly sensed by neurons through their projections in the skin. A subset of the mammalian transient receptor potential (TRP) family of ion channels has been implicated in this process. These "thermoTRPs" are activated at distinct temperature thresholds and are typically expressed in sensory neurons. TRPV3 is activated by heat (>33°) and, unlike most thermoTRPs, is expressed in mouse keratinocytes. We found that TRPV3 null mice have strong deficits in responses to innocuous and noxious heat but not in other sensory modalities; hence, TRPV3 has a specific role in thermosensation. The natural compound camphor, which modulates sensations

of warmth in humans, proved to be a specific activator of TRPV3. Camphor activated cultured primary keratinocytes but not sensory neurons, and this activity was abolished in TRPV3 null mice. Therefore, heat-activated receptors in keratinocytes are important for mammalian thermosensation.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 29 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:64723 CAPLUS

DOCUMENT NUMBER: 142:237058

TITLE: The Temperature-Sensitive Ion Channel TRPV2 is

Endogenously Expressed and Functional in the Primary

Sensory Cell Line F-11

AUTHOR(S): Bender, Florian; Mederos y Schnitzler, Michael; Li,

Yanzhang; Ji, Ailing; Weihe, Eberhard; Gudermann,

Thomas; Schaefer, Martin

CORPORATE SOURCE: Molecular Neuroscience, Institute of Anatomy and Cell

Biology, Philipps University Marburg, Marburg, Germany

SOURCE: Cellular Physiology and Biochemistry (2005), 15(1-4),

183-194

CODEN: CEPBEW; ISSN: 1015-8987

PUBLISHER: S. Karger AG

DOCUMENT TYPE: Journal LANGUAGE: English

In sensory neurons heat is transduced by a subfamily of TRP channels sharing sequence homol. with the capsaicin-sensitive vanilloid receptor subtype 1 (TRPV1), but differing in their thermal response thresholds. To identify a neuronal cell line endogenously expressing noxious heat-transducing ion channels, we examined F-11 cells, a hybridoma derived from rat dorsal root ganglia and mouse neuroblastoma. Using RT-PCR, transcripts homologous to TRPV2 and TRPV4, but not to TRPV1 or TRPV3, were found. We isolated a full-length cDNA of 2.4 kb coding for a 757-amino acid protein corresponding to mouse TRPV2, which was further characterized by immunocytochem. and electrophysiol. Using the whole-cell patch-clamp technique, we observed a heat-evoked increase in outward and inward currents with a threshold of 51.6 ± 0.2 °C. The current-voltage relationship stimulated by a temperature of 52°C was characterized by an outward rectification with a reversal potential close to -10 mV. Heat-evoked currents could be inhibited by ruthenium red. There was no activation by stimulation with capsaicin or 2-aminoethoxydiphenyl borate. Our results indicate that F-11 cells express functional noxious heat-sensitive TRPV2 channels. Thus, we propose that F-11 cells represent a valuable in vitro model to characterize the properties of TRPV2 in a native neuronal environment.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 30 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:50668 CAPLUS

DOCUMENT NUMBER: 142:152793

TITLE: The role of TRP channels in sensory neurons

AUTHOR(S): Koltzenburg, Martin

CORPORATE SOURCE: Neural Plasticity Unit, Institute of Child Health,

London, WC1N 1EH, UK

SOURCE: Novartis Foundation Symposium (2004),

260 (Osteoarthritic Joint Pain), 206-220

CODEN: NFSYF7; ISSN: 1528-2511

PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. Two parallel processes characterize the contemporary

pain field. Firstly, enormous progress is being made in the discovery of the cellular and mol. mechanisms responsible for the pathogenesis of pain and secondly, there is a growing appreciation that multiple mechanisms contribute to common clin. pain syndromes. The aim of this chapter is to provide a short overview how transient receptor potential (TRP) channels could contribute to acute and chronic pain states. TRP channels of the vanilloid family (TRPV1, TRPV2, TRPV3, TRPV4) are excited by heat stimuli whereas TRPM8 and ANKTM1 are cold responsive. TRPV1 and ANKTM1 are mediating the pungency of nociceptor-specific chems. such as capsaicin or mustard oil. Sensitization of TRPV1 is an important mechanisms for heat hyperalgesia and thus the generation of chronic pain symptoms.

REFERENCE COUNT: THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 31 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:15176 CAPLUS

DOCUMENT NUMBER: 142:90823

TITLE: Nociception and TRP channels

AUTHOR(S): Numazaki, Mitsuko; Tominaga, Makoto

CORPORATE SOURCE: Department of Anesthesiology, University of Tsukuba

School of Medicine, Tsukuba, 305-0006, Japan

Current Drug Targets: CNS & Neurological Disorders SOURCE:

(2004), 3(6), 479-485

CODEN: CDTCCC; ISSN: 1568-007X Bentham Science Publishers Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

PUBLISHER:

A review. Noxious thermal, mech., or chemical stimuli evoke pain through excitation of the peripheral terminals called nociceptor, and many kinds of ionotropic and metabotropic receptors are involved in this process. Capsaicin receptor TRPV1 is a nociceptor-specific ion channel that serves as the mol. target of capsaicin. TRPV1 can be activated not only by capsaicin but also by noxious heat (with a thermal threshold $>43^{\circ}$) or protons (acidification), all of which are known to cause pain in vivo. Studies using TRPV1-deficient mice have shown that TRPV1 is essential for selective modalities of pain sensation and for thermal hyperalgesia. One mechanism underlying inflammatory pain which is initiated by tissue damage/inflammation and characterized by hypersensitivity is sensitization of TRPV1. In addition to TRPV1, there are five thermosensitive ion channels in mammals, all of which belong to the TRP (transient receptor potential) super family. These include TRPV2, TRPV3, TRPV4, TRPM8 and TRPA1. These channels exhibit distinct thermal activation thresholds (> 52° for TRPV2, > .apprx.34-38° for TRPV3, > .apprx.27-35° for TRPV4, < .apprx.25-28° for TRPM8 and < 17° for TRPA1) and are expressed in primary sensory neurons as well as other tissues. Some of the thermosensitive TRP channels are likely to be involved in thermal nociception, since their activation thresholds are within the noxious range of temps.

REFERENCE COUNT: 95 THERE ARE 95 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 32 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN 1.9

ACCESSION NUMBER: 2004:836627 CAPLUS

DOCUMENT NUMBER: 141:345114

TITLE: Molecular mechanisms of thermosensation

AUTHOR(S): Tominaga, Makoto

CORPORATE SOURCE: Sect. Cell Signaling, Okazaki Inst. Integr. Biosci.,

Natl. Inst. Nat. Sci., Okazaki, 444-8787, Japan

SOURCE: Nippon Yakurigaku Zasshi (2004), 124(4), 219-227

CODEN: NYKZAU; ISSN: 0015-5691

Nippon Yakuri Gakkai PUBLISHER: DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

A review. We feel a wide range of temps. spanning from cold to heat. Within this range, temps. over about 43° and below about 15° evoke not only a thermal sensation, but also a feeling of pain. In mammals, six thermosensitive ion channels have been reported, all of which belong to the TRP (transient receptor potential) super family. These include TRPV1 (VR1), TRPV2 (VRL-1), TRPV3, TRPV4, TRPM8 (CMR1), and TRPA1 (ANKTM1). These channels exhibit distinct thermal

activation thresholds (>43° for TRPV1, >52° for TRPV2,

>32-39° for TRPV3, >27-35° for TRPV4,

 $<25-28^{\circ}$ for TRPM8, and $<17^{\circ}$ for TRPA1) and are expressed in primary sensory neurons as well as other tissues. The involvement od TRPV1 in thermal nociception has been demonstrated by multiple methods, including the anal. of TRPV1-deficient mice. Temperature thresholds for activation of TRPV1, TRPV4, and TRPM8 are not fixed but changeable. Reduction of the temperature threshold for TRPV1 activation is thought to be one mechanism

of inflammatory pain. Significant advances in thermosensation research have been made in the last several years with the cloning and characterization of thermosensitive TRP channels. With these clones in hand, we can begin to understand thermosensation from a mol. standpoint.

ANSWER 33 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:679239 CAPLUS

DOCUMENT NUMBER: 141:236376

TITLE: 2-Aminoethoxydiphenyl Borate Is a Common Activator of

TRPV1, TRPV2, and TRPV3

AUTHOR(S): Hu, Hong-Zhen; Gu, Qihai; Wang, Chunbo; Colton, Craig

K.; Tang, Jisen; Kinoshita-Kawada, Mariko; Lee,

Lu-Yuan; Wood, Jackie D.; Zhu, Michael X.

CORPORATE SOURCE: Department of Physiology and Cell Biology, The Ohio

State University, Columbus, OH, 43210, USA

SOURCE: Journal of Biological Chemistry (2004), 279(34),

35741-35748

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular

Biology Journal

DOCUMENT TYPE: English

AB The transient receptor potential (TRP) superfamily contains a large number of proteins encoding cation permeable channels that are further divided into TRPC (canonical), TRPM (melastatin), and TRPV (vanilloid) subfamilies. Among the six TRPV members, TRPV1, TRPV2, TRPV3, and TRPV4 form heat-activated cation channels, which serve diverse functions ranging from nociception to osmolality regulation. Although chemical activators for TRPV1 and TRPV4 are well documented, those for TRPV2 and TRPV3 are lacking. Here we show that in the absence of other stimuli, 2-aminoethoxydiphenyl borate (2APB) activates TRPV1, TRPV2, and TRPV3, but not TRPV4, TRPV5, and TRPV6 expressed in HEK293 cells. In contrast, 2APB inhibits the activity of TRPC6 and TRPM8 evoked by 1-oleolyl-2-acetyl-sn-glycerol and menthol, resp. In addition, low levels of 2APB strongly potentiate the effect of capsaicin, protons, and heat on TRPV1 as well as that of heat on TRPV3 expressed in Xenopus oocytes. In dorsal root ganglia neurons, supra-additive stimulations were evoked by 2APB and capsaicin or 2APB and acid. Our data suggest the existence of a common activation mechanism for TRPV1, TRPV2, and TRPV3 that may serve as a therapeutic target for pain management and treatment for diseases caused by hypersensitivity and

temperature

misregulation.

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 34 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:634619 CAPLUS TITLE: TRPV channels in pain AUTHOR(S): Caterina, Michael

CORPORATE SOURCE: Department of Biological Chemistry, Johns Hopkins

University, School of Medicine, Baltimore, MD, 21205,

USA

SOURCE: Abstracts of Papers, 226th ACS National Meeting, New

York, NY, United States, September 7-11, 2003 (2003), MEDI-009. American Chemical Society: Washington, D.

C.

CODEN: 69EKY9

DOCUMENT TYPE: Conference; Meeting Abstract

LANGUAGE: English

AB The TRPV ion channel subfamily is of considerable interest in the context of its involvement in nociception and other sensory processes. The founding member, TRPV1 (VR1) is highly expressed in a subset of small-to-medium diameter sensory neurons and is activated by capsaicin and pungent vanilloids, protons, noxious heat (> 42°C) or a variety of lipid compds. Mice lacking TRPV1 are insensitive to vanilloids and defective in the detection of noxious heat (e.g. inflammatory thermal hyperalgesia). TRPV2 (VRL-1) is expressed in a subset of medium-to-large diameter neurons and is activated by very high temps. (> 52°C) or growth factors. TRPV3 and TRPV4 are warmth-gated ion channels with a slightly lower activation threshold (.apprx.33°C). TRPV4 can alternatively be activated by the phorbol derivative, 4a phorbol 12,13-didecanoate or by hypoosmolarity and may participate in mechanosensation.

L9 ANSWER 35 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:463560 CAPLUS

DOCUMENT NUMBER: 139:50112

TITLE: Molecular mechanisms of nociception and

thermosensation: structures, expressions and functions

of capsaicin receptor and its homologues

AUTHOR(S): Numazaki, Mitsuko; Tominaga, Makoto

CORPORATE SOURCE: Cell. Mol. Phaysiol., Mie Univ. Sch. Med., Tsu,

514-8507, Japan

SOURCE: Seikagaku (2003), 75(5), 359-371 CODEN: SEIKAQ; ISSN: 0037-1017

CODEN. BEILLIQ, IBBN. 0057

PUBLISHER: Nippon Seikagakkai DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB A review on (1) structure and classification of transient receptor potential (TRP) cation channel superfamily, (2) electrophysiol. characteristics, structure-function relationship, reception of multiple pain stimuli (capsaicin, acid, and heat), activation regulation, tissue distribution, agonists, and antagonists of TRPV1 (capsaicin receptor), and (3) TRPV1 homolog involved in thermosensation (TRPV2 for noxious heat, TRPV3 and TRPV4 for warm temps., and TRPM8 for cold temps.).

L9 ANSWER 36 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:964512 CAPLUS

DOCUMENT NUMBER: 138:50915

TITLE: Vanilloid receptor-related nucleic acids and

polypeptides and their use for treating pain

and screening for therapeutic agents

INVENTOR(S): Patapoutian, Ardem; Song, Chuanzheng; Ganju, Pamposh;

Peier, Andrea; McIntyre, Peter; Bevan, Stuart

Novartis AG, Switz.; Irm LLC

SOURCE: PCT Int. Appl., 197 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT ASSIGNEE(S):

PAT	CENT :	NO.			KINI	D	DATE			APPI	ICAT	ION 1	DATE				
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CA	W: RW: 2450	AE, CO, HR, LV, SI, AM, FI,	AG, CR, HU, MA, SK, AZ, FR,	AL, CU, ID, MD, TJ, BY, GB,	AM, AT, AU, AZ, CZ, DE, DK, DM, IL, IN, IS, JP, MK, MN, MX, NO, TM, TN, TR, TT, KG, KZ, MD, RU, GR, IE, IT, LU, A1 20021219 A1 20021223 A1 20030821					EC, KG, OM, US, TM, NL,	EE, KP, PH, UZ, AT, PT,	ES, KR, PL, VN, BE, SE, 2450	GB, LC, RO, ZA, CY,	GD LK RU ZW DE	, GE, , LT, , SE, , DK,	GH, LU, SG, ES,	
JP US US US AU	R: AT, BE, C IE, SI, L JP 2005500028 US 20060251648				A2 DE, LV, T A1 B2 A1	DK, FI,	ES, RO, 2005 2006 2008 2008	FR, MK, 0106 1109 0708 0327	GB, CY,	EP 2002-778891 GB, GR, IT, LI, LU, CY, AL, TR JP 2003-503795 US 2006-384955 US 2006-386249 AU 2006-252263 US 2001-297835P US 2002-351238P US 2002-357161P US 2002-381086P US 2002-381739P					SE PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP	20020613 , MC, PT 20020613 20060320 20060321 20061222 20010613 20020122 20020129 20020515	
										US 2 WO 2	2002- 2002-:	1713 EP65.	19 20		A1 W	20020 20020 20020	613 613

This invention provides novel human genes and polypeptides of the vanilloid receptor (VR) family, identification of trkA pain -specific genes expressed in the dorsal root ganglia, and use of these genes and polypeptides for the treatment of pain and identification of agents useful in the treatment of pain. In particular, cDNA and protein sequences are provided for human and murine TRPV3 (previously known as VRLS, VRLX, VR4, and TRPV7), TRPV4 (previously known as VRL3 and OTRPC4), and TRPM8 (previously known as TRPX). The genes are expressed in either keratinocytes or the dorsal root ganglia, and both TRPV3 and TRPM8 proteins function in temperature sensation. In addition, expression of TRPV3 and TRPV4 genes is up-regulated in a rat injury model.

L9 ANSWER 37 OF 52 MEDLINE on STN

ACCESSION NUMBER: 2008672659 IN-PROCESS

DOCUMENT NUMBER: PubMed ID: 18930858

TITLE: Menthol derivative WS-12 selectively activates transient

receptor potential melastatin-8 (TRPM8) ion channels.

AUTHOR: Ma Sherkheli; G Gisselmann; Ak Vogt-Eisele; Jf Doerner; H

Hatt

CORPORATE SOURCE: Department of Cell Physiology, Faculty of Biology &

Biotechnology, Ruhr-University-Bochum, University Street

150, Bochum 44801, Germany.

SOURCE: Pakistan journal of pharmaceutical sciences, (2008 Oct)

Vol. 21, No. 4, pp. 370-8.

Journal code: 9426356. ISSN: 1011-601X.

PUB. COUNTRY: Pakistan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: NONMEDLINE; IN-DATA-REVIEW; IN-PROCESS; NONINDEXED;

Priority Journals

ENTRY DATE: Entered STN: 21 Oct 2008

Last Updated on STN: 21 Oct 2008

AΒ Transient receptor potential melastatin-8 (TRPM8), a cationic ion channel is involved in detection of normal cooling-sensation in mammals. activation by cooling or chemical agonists have been shown to produce profound, mechanistically novel analgesia in chronic pain states such as neuropathic pain in rodents. Known TRPM8 agonists such as menthol and icilin have a relatively low potency and cross-activate nociceptors like TRPA1; thus bearing a limited therapeutic usefulness. For that reason, characterising ligands, which selectively activate TRPM8, presents a clinical need. Using Xenopus laevis oocytes as expression system, we evaluated WS-12, a menthol derivative, for its potential interaction with all six thermo-sensitive TRP ion channels. Oocytes were injected with cRNA of gene of interest and incubated for 3-5 days (at 16 degrees C) before testing for functional characterisation of the recombinant ion channels. Oocytes were superfused with the test and standard substances respectively. Responses were measured by two-electrode voltage clamp technique and the amplitudes of evoked currents were compared with baseline values. WS-12 robustly activated TRPM8 in low micromolar concentrations (EC50 12+/-5 muM) thereby displaying a higher potency and efficacy compared to menthol (EC50 196+/-22 muM). Any of the other described thermo-sensitive TRP ion channel including TRPV1, TRPV2, TRPV3, TRPV4 and TRPA1 were not activated at a concentration (1 mM) optimally effective for TRPM8 responses; a characteristic which is in sharp contrast to menthol as it activates TRPA1 and TRPV3 in addition to TRPM8. Unlike icilin (75% reduction; p<0.001, n=6), WS-12 does not induce tachyphylaxis (4+/-2.3%) increase in responses; p<0.08, n=6) of TRPM8 mediated currents to repeated exposure of 1 mM doses. In addition, acidosis or variations in extracellular calcium have no influence on potency/efficacy of WS-12 for TRPM8. The selectivity profile of WS-12, its several-fold higher potency and around two-fold increase in efficacy compared to menthol warrants its potential utility for therapy in chronic neuropathic pain states and as a diagnostic probe in prostate cancer.

L9 ANSWER 38 OF 52 MEDLINE on STN ACCESSION NUMBER: 2008299125 MEDLINE DOCUMENT NUMBER: PubMed ID: 18461159

TITLE: Citral sensing by TRANSient receptor potential channels in

dorsal root ganglion neurons.

AUTHOR: Stotz Stephanie C; Vriens Joris; Martyn Derek; Clardy Jon;

Clapham David E

CORPORATE SOURCE: Howard Hughes Medical Institute, Department of Cardiology,

Children's Hospital, Boston, Massachusetts, United States

of America.

CONTRACT NUMBER: (United States Howard Hughes Medical Institute)

SOURCE: PLoS ONE, (2008) Vol. 3, No. 5, pp. e2082. Electronic

Publication: 2008-05-07.

Journal code: 101285081. E-ISSN: 1932-6203.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200808

ENTRY DATE: Entered STN: 8 May 2008

Last Updated on STN: 29 Aug 2008 Entered Medline: 28 Aug 2008

AΒ Transient receptor potential (TRP) ion channels mediate key aspects of taste, smell, pain, temperature sensation, and pheromone detection. To deepen our understanding of TRP channel physiology, we require more diverse pharmacological tools. Citral, a bioactive component of lemongrass, is commonly used as a taste enhancer, as an odorant in perfumes, and as an insect repellent. Here we report that citral activates TRP channels found in sensory neurons (TRPV1 and TRPV3 , TRPM8, and TRPA1), and produces long-lasting inhibition of TRPV1-3 and TRPM8, while transiently blocking TRPV4 and TRPA1. Sustained citral inhibition is independent of internal calcium concentration, but is state-dependent, developing only after TRP channel opening. Citral's actions as a partial agonist are not due to cysteine modification of the channels nor are they a consequence of citral's stereoisoforms. The isolated aldehyde and alcohol cis and trans enantiomers (neral, nerol, geranial, and geraniol) each reproduce citral's actions. In juvenile rat dorsal root ganglion neurons, prolonged citral inhibition of native TRPV1 channels enabled the separation of TRPV2 and TRPV3 currents. find that TRPV2 and TRPV3 channels are present in a high proportion of these neurons (94% respond to 2-aminoethyldiphenyl borate), consistent with our immunolabeling experiments and previous in situ hybridization studies. The TRPV1 activation requires residues in transmembrane segments two through four of the voltage-sensor domain, a region previously implicated in capsaicin activation of TRPV1 and analogous menthol activation of TRPM8. Citral's broad spectrum and prolonged sensory inhibition may prove more useful than capsaicin for allodynia, itch, or other types of pain involving superficial sensory nerves and skin.

L9 ANSWER 39 OF 52 MEDLINE ON STN ACCESSION NUMBER: 2008152529 MEDLINE DOCUMENT NUMBER: PubMed ID: 18249134

TITLE: Investigation of TRPV1 loss-of-function phenotypes in

transgenic shRNA expressing and knockout mice.

AUTHOR: Christoph Thomas; Bahrenberg Gregor; De Vry Jean;

Englberger Werner; Erdmann Volker A; Frech Moritz; Kogel Babette; Rohl Thomas; Schiene Klaus; Schroder Wolfgang;

Seibler Jost; Kurreck Jens

CORPORATE SOURCE: Preclinical Research and Development, Department of

Pharmacology, Grunenthal, Zieglerstrasse 6, 52078 Aachen,

Germany.. thomas.christoph@grunenthal.com

SOURCE: Molecular and cellular neurosciences, (2008 Mar) Vol. 37,

No. 3, pp. 579-89. Electronic Publication: 2007-12-15.

Journal code: 9100095. E-ISSN: 1095-9327.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200804

ENTRY DATE: Entered STN: 4 Mar 2008

Last Updated on STN: 11 Apr 2008 Entered Medline: 10 Apr 2008

AB The function of the transient receptor potential vanilloid 1 (TRPV1) cation channel was analyzed with RNA interference technologies and compared to TRPV1 knockout mice. Expression of shRNAs targeting TRPV1 in transgenic (tg) mice was proven by RNase protection assays, and TRPV1

downregulation was confirmed by reduced expression of TRPV1 mRNA and lack of receptor agonist binding in spinal cord membranes. Unexpectedly, TRPV3 mRNA expression was upregulated in shRNAtg but downregulated in knockout mice. Capsaicin-induced [Ca(2+)](i) changes in small diameter DRG neurons were significantly diminished in TRPV1 shRNAtg mice, and administration of capsaicin hardly induced hypothermia or nocifensive behaviour in vivo. Likewise, sensitivity towards noxious heat was reduced. Interestingly, spinal nerve injured TRPV1 knockout but not shRNAtg animals developed mechanical allodynia and hypersensitivity. The present study provides further evidence for the relevance of TRPV1 in neuropathic pain and characterizes RNA interference as valuable technique for drug target validation in pain research.

L9 ANSWER 40 OF 52 MEDLINE ON STN ACCESSION NUMBER: 2007567810 MEDLINE DOCUMENT NUMBER: PubMed ID: 17850966

TITLE: Transient receptor potential V2 expressed in sensory

neurons is activated by probenecid.

AUTHOR: Bang Sangsu; Kim Kyung Yoon; Yoo Sungjae; Lee Sang-Heon;

Hwang Sun Wook

CORPORATE SOURCE: Korea University Graduate School of Medicine, Seoul

136-705, Republic of Korea.

SOURCE: Neuroscience letters, (2007 Sep 25) Vol. 425, No. 2, pp.

120-5. Electronic Publication: 2007-08-24.

Journal code: 7600130. ISSN: 0304-3940.

PUB. COUNTRY: Ireland

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200712

ENTRY DATE: Entered STN: 25 Sep 2007

Last Updated on STN: 18 Dec 2007 Entered Medline: 14 Dec 2007

AΒ Temperature-activated transient receptor potential ion channels (thermoTRPs) are known to function as ambient temperature sensors and are also involved in peripheral pain sensation. The thermoTRPs are activated by a variety of chemicals, of which specific activators have been utilized to explore the physiology of particular channels and sensory nerve subtypes. The use of capsaicin for TRPV1 is an exemplary case for nociceptor studies. In contrast, specific agents for another vanilloid subtype channel, TRPV2 have been lacking. Here, we show that probenecid is able to activate TRPV2 using electrophysiological and calcium imaging techniques with TRPV2-expressing HEK293T cells. Five other sensory thermoTRPs-TRPV1, TRPV3, TRPV4, TRPM8 and TRPA1-failed to show a response to this drug in the same heterologous expression system, suggesting that probenecid is a specific activator for TRPV2. Probenecid-evoked responses were also reproduced in a distinct subset of cultured trigeminal neurons that were responsive to 2-aminoethoxydiphenyl borate, a TRPV1-3 activator. The probenecid-sensitive neurons were mainly distributed in a medium to large-diameter population, in agreement with previous observations with TRPV2 immunolocalization. Under inflammation, probenecid elicited nociceptive behaviors in in vivo assays. results suggest that TRPV2 is specifically activated by probenecid and that this chemical might be useful for investigation of pain -related TRPV2 function.

L9 ANSWER 41 OF 52 MEDLINE ON STN ACCESSION NUMBER: 2007456080 MEDLINE DOCUMENT NUMBER: PubMed ID: 17321113

TITLE: TRP channels: targets for the relief of pain.

AUTHOR: Levine Jon D; Alessandri-Haber Nicole

CORPORATE SOURCE: Department of Oral and Maxillofacial Surgery, Box 0440,

University of California, San Francisco, 521 Parnassus

Avenue, San Francisco, CA 94143-0440, USA.

SOURCE: Biochimica et biophysica acta, (2007 Aug) Vol. 1772, No. 8,

pp. 989-1003. Electronic Publication: 2007-01-23. Ref: 192

Journal code: 0217513. ISSN: 0006-3002.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200709

ENTRY DATE: Entered STN: 7 Aug 2007

Last Updated on STN: 29 Sep 2007 Entered Medline: 28 Sep 2007

AB Patients with inflammatory or neuropathic pain experience hypersensitivity to mechanical, thermal and/or chemical stimuli. Given the diverse etiologies and molecular mechanisms of these pain syndromes, an approach to developing successful therapies may be to target ion channels that contribute to the detection of thermal, mechanical and chemical stimuli and promote the sensitization and activation of nociceptors. Transient Receptor Potential (TRP) channels have emerged as a family of evolutionarily conserved ligand-gated ion channels that contribute to the detection of physical stimuli. Six TRPs (TRPV1, TRPV2, TRPV3, TRPV4, TRPM8 and TRPA1) have been shown to be expressed in primary afferent nociceptors, pain sensing neurons, where they act as transducers for thermal, chemical and mechanical stimuli. This short review focuses on their contribution to pain

hypersensitivity associated with peripheral inflammatory and neuropathic pain states.

L9 ANSWER 42 OF 52 MEDLINE on STN ACCESSION NUMBER: 2007361179 MEDLINE DOCUMENT NUMBER: PubMed ID: 17521436

TITLE: Differential expression of the capsaicin receptor TRPV1 and

related novel receptors TRPV3, TRPV4 and TRPM8 in

normal human tissues and changes in traumatic and diabetic

neuropathy.

AUTHOR: Facer Paul; Casula Maria A; Smith Graham D; Benham

Christopher D; Chessell Iain P; Bountra Chas; Sinisi Marco;

Birch Rolfe; Anand Praveen

CORPORATE SOURCE: Peripheral Neuropathy Unit, Imperial College, Hammersmith

Hospital, London, UK. p.facer@imperial.ac.uk.

<p.facer@imperial.ac.uk>

SOURCE: BMC neurology, (2007) Vol. 7, pp. 11. Electronic

Publication: 2007-05-23.

Journal code: 100968555. E-ISSN: 1471-2377.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200707

ENTRY DATE: Entered STN: 20 Jun 2007

Last Updated on STN: 11 Jul 2007 Entered Medline: 10 Jul 2007

AB BACKGROUND: Transient receptor potential (TRP) receptors expressed by primary sensory neurons mediate thermosensitivity, and may play a role in sensory pathophysiology. We previously reported that human dorsal root ganglion (DRG) sensory neurons co-expressed TRPV1 and TRPV3, and that these were increased in injured human DRG. Related receptors TRPV4, activated by warmth and eicosanoids, and TRPM8, activated by cool and menthol, have been characterised in pre-clinical models. However, the

role of TRPs in common clinical sensory neuropathies needs to be established. METHODS: We have studied TRPV1, TRPV3, TRPV4, and TRPM8 in nerves (n = 14) and skin from patients with nerve injury, avulsed dorsal root ganglia (DRG) (n = 11), injured spinal nerve roots (n = 9), diabetic neuropathy skin (n = 8), non-diabetic neuropathic nerve biopsies (n = 6), their respective control tissues, and human post mortem spinal cord, using immunohistological methods. RESULTS: TRPV1 and TRPV3 were significantly increased in injured brachial plexus nerves, and TRPV1 in hypersensitive skin after nerve repair, whilst TRPV4 was unchanged. TRPM8 was detected in a few medium diameter DRG neurons, and was unchanged in DRG after avulsion injury, but was reduced in axons and myelin in injured nerves. In diabetic neuropathy skin, TRPV1 expressing sub- and intra-epidermal fibres were decreased, as was expression in surviving fibres. TRPV1 was also decreased in non-diabetic neuropathic nerves. Immunoreactivity for TRPV3 was detected in basal keratinocytes, with a significant decrease of TRPV3 in diabetic skin. TRPV1-immunoreactive nerves were present in injured dorsal spinal roots and dorsal horn of control spinal cord, but not in ventral roots, while TRPV3 and TRPV4 were detected in spinal cord motor neurons. CONCLUSION: The accumulation of TRPV1 and TRPV3 in peripheral nerves after injury, in spared axons, matches our previously reported changes in avulsed DRG. Reduction of TRPV1 levels in nerve fibres in diabetic neuropathy skin may result from the known decrease of nerve growth factor (NGF) levels. The role of TRPs in keratinocytes is unknown, but a relationship to changes in NGF levels, which is produced by keratinocytes, deserves investigation. TRPV1 represents a more selective therapeutic target than other TRPs for pain and hypersensitivity, particularly in post-traumatic neuropathy.

L9 ANSWER 43 OF 52 MEDLINE on STN ACCESSION NUMBER: 2006470744 MEDLINE DOCUMENT NUMBER: PubMed ID: 16829128

TITLE: More than cool: promiscuous relationships of menthol and

other sensory compounds.

AUTHOR: Macpherson Lindsey J; Hwang Sun Wook; Miyamoto Takashi;

Dubin Adrienne E; Patapoutian Ardem; Story Gina M

CORPORATE SOURCE: Department of Cell Biology, The Scripps Research Institute,

La Jolla, CA 92037, USA.

CONTRACT NUMBER: NS046303 (United States NINDS)

NS047911 (United States NINDS) NS04910 (United States NINDS)

SOURCE: Molecular and cellular neurosciences, (2006 Aug) Vol. 32,

No. 4, pp. 335-43. Electronic Publication: 2006-07-07.

Journal code: 9100095. ISSN: 1044-7431.

PUB. COUNTRY: United States

DOCUMENT TYPE: (COMPARATIVE STUDY)

Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, N.I.H., EXTRAMURAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200610

ENTRY DATE: Entered STN: 9 Aug 2006

Last Updated on STN: 24 Oct 2006 Entered Medline: 24 Oct 2006

AB Several temperature-activated transient receptor potential (thermoTRP) ion channels are the molecular receptors of natural compounds that evoke thermal and pain sensations. Menthol, popularly known for its cooling effect, activates TRPM8--a cold-activated thermoTRP ion channel. However, human physiological studies demonstrate a paradoxical role of menthol in modulation of warm sensation, and here, we show that menthol also activates heat-activated TRPV3. We further show that menthol inhibits TRPA1, potentially explaining the use of menthol as an

analgesic. Similar to menthol, both camphor and cinnamaldehyde (initially reported to be specific activators of TRPV3 and TRPA1, respectively) also modulate other thermoTRPs. Therefore, we find that many "sensory compounds" presumed to be specific have a promiscuous relationship with thermoTRPs.

L9 ANSWER 44 OF 52 MEDLINE on STN ACCESSION NUMBER: 2006151454 MEDLINE DOCUMENT NUMBER: PubMed ID: 16540576

TITLE: Glial cell-line-derived neurotrophic factor expression in

skin alters the mechanical sensitivity of cutaneous

nociceptors.

AUTHOR: Albers Kathryn M; Woodbury C Jeffrey; Ritter Amy M; Davis

Brian M; Koerber H Richard

CORPORATE SOURCE: Department of Medicine, University of Pittsburgh School of

Medicine, Pittsburgh, Pennsylvania 15261, USA.

CONTRACT NUMBER: GM33730 (United States NIGMS)

NS23725 (United States NINDS) NS31826 (United States NINDS) NS33730 (United States NINDS)

SOURCE: The Journal of neuroscience: the official journal of the

Society for Neuroscience, (2006 Mar 15) Vol. 26, No. 11,

pp. 2981-90.

Journal code: 8102140. E-ISSN: 1529-2401.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, N.I.H., EXTRAMURAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200604

ENTRY DATE: Entered STN: 17 Mar 2006

Last Updated on STN: 22 Apr 2006 Entered Medline: 21 Apr 2006

AΒ Neurons classified as nociceptors are dependent on nerve growth factor (NGF) during embryonic development, but a large subpopulation lose this dependence during embryonic and postnatal times and become responsive to the transforming growth factor beta family member, glial cell line-derived growth factor (GDNF). To elucidate the functional properties of GDNF-dependent nociceptors and distinguish them from nociceptors that retain NGF dependence, the cellular and physiologic properties of sensory neurons of wild-type and transgenic mice that overexpress GDNF in the skin (GDNF-OE) were analyzed using a skin, nerve, dorsal root ganglion, and spinal cord preparation, immunolabeling, and reverse transcriptase-PCR assays. Although an increase in peripheral conduction velocity of C-fibers in GDNF-OE mice was measured, other electrophysiological properties, including resting membrane potential and somal action potentials, were unchanged. We also show that isolectin B4 (IB4)-positive neurons, many of which are responsive to GDNF, exhibited significantly lower thresholds to mechanical stimulation relative to wild-type neurons. However, no change was observed in heat thresholds for the same population of cells. The increase in mechanical sensitivity was found to correlate with significant increases in acid-sensing ion channels 2A and 2B and transient receptor potential channel A1, which are thought to contribute to detection of mechanical stimuli. These data indicate that enhanced expression of GDNF in the skin can change mechanical sensitivity of IB4-positive nociceptive afferents and that this may occur through enhanced expression of specific types of channel proteins.

L9 ANSWER 45 OF 52 MEDLINE on STN ACCESSION NUMBER: 2005539402 MEDLINE DOCUMENT NUMBER: PubMed ID: 16165301

TITLE: The TRPV1/2/3 activator 2-aminoethoxydiphenyl borate

sensitizes native nociceptive neurons to heat in wildtype

but not TRPV1 deficient mice.

AUTHOR: Zimmermann K; Leffler A; Fischer M M J; Messlinger K; Nau

C; Reeh P W

CORPORATE SOURCE: Department of Physiology and Pathophysiology,

Friedrich-Alexander-University Erlangen-Nuremberg, Universitaetsstrasse 17, D-91054 Erlangen, Germany...

zimmermann@physiologie1.uni-erlangen.de

SOURCE: Neuroscience, (2005) Vol. 135, No. 4, pp. 1277-84.

Electronic Publication: 2005-09-13.

Journal code: 7605074. ISSN: 0306-4522.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200601

ENTRY DATE: Entered STN: 12 Oct 2005

Last Updated on STN: 12 Jan 2006 Entered Medline: 11 Jan 2006

AΒ TRPV1 gene disruption results in a loss of capsaicin and proton responsiveness, but has minimal effects on heat-induced nocifensive behavior, suggesting that sensory transduction of heat is independent of TRPV1. TRPV3, another heat-activated ion channel but insensitive to capsaicin, was shown to be expressed in keratinocytes as well as in sensory neurons projecting to the skin. Recently, 2-aminoethoxydiphenyl borate was introduced as a TRPV3 agonist, but its selectivity was questioned by showing that it activated recombinant TRPV1 $\bar{\text{a}}\text{nd}$ TRPV2 as well. We used the isolated mouse skin-saphenous nerve preparation and whole-cell patch-clamping of cultured dorsal root ganglia neurons from TRPV1-/- and wildtype mice. We found no phenotypic differences between the heat responses of polymodal C-fibers, whereas cultured dorsal root ganglia neurons of TRPV1-/- hardly showed any heat-activated currents. Only C-fibers of wildtype but not TRPV1-/- mice were clearly sensitized to heat by 2-aminoethoxydiphenyl borate 10 and 100 microM; heat-activated current in wildtype neurons was only facilitated at 100 microM. Noxious heat-induced calcitonin gene-related peptide release showed clear deficits (<50%) in TRPV1 deficient skin, but the stimulated calcitonin gene-related peptide release from the isolated skull dura was unaffected. In both models, 2-aminoethoxydiphenyl borate was able to potentiate the heat response (46 degrees C, 5 min) in a concentration-dependent manner, again, only in wildtype but not ${\tt TRPV1-/-}$ mice, suggesting that TRPV2/3 are not involved in this sensitization to heat. The results further suggest that TRPV1 is not responsible for the normal heat response of native nociceptors but plays the essential role in thermal sensitization and a prominent one in controlling dermal calcitonin gene-related peptide release, i.e. neurogenic inflammation.

L9 ANSWER 46 OF 52 MEDLINE on STN ACCESSION NUMBER: 2005530487 MEDLINE DOCUMENT NUMBER: PubMed ID: 15952037

TITLE: TRPV channels as thermosensory receptors in epithelial

cells.

AUTHOR: Lee Hyosang; Caterina Michael J

CORPORATE SOURCE: Departments of Biological Chemistry and Neuroscience, Johns

Hopkins School of Medicine, 725 N Wolfe Street, Baltimore,

MD 21205, USA.

SOURCE: Pflugers Archiv: European journal of physiology, (2005

Oct) Vol. 451, No. 1, pp. 160-7. Electronic Publication:

2005-06-11. Ref: 63

Journal code: 0154720. ISSN: 0031-6768.

PUB. COUNTRY: Germany: Germany, Federal Republic of

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200606

ENTRY DATE: Entered STN: 6 Oct 2005

Last Updated on STN: 7 Jun 2006 Entered Medline: 6 Jun 2006

AB Temperature-sensitive transient receptor potential vanilloid (TRPV) ion channels are critical contributors to normal pain and temperature sensation and therefore represent attractive targets for pain therapy. When these channels were first discovered, most attention was focused on their potential contributions to direct thermal activation of peripheral sensory neurons. However, recent anatomical, physiological, and behavioral studies have provided evidence that TRPV channels expressed in skin epithelial cells may also contribute to thermosensation in vitro and in vivo. Here, we review these studies and speculate on possible communication mechanisms from cutaneous epithelial cells to sensory neurons.

L9 ANSWER 47 OF 52 MEDLINE on STN ACCESSION NUMBER: 2004605623 MEDLINE DOCUMENT NUMBER: PubMed ID: 15578965

TITLE: Nociception and TRP Channels.
AUTHOR: Numazaki Mitsuko; Tominaga Makoto

CORPORATE SOURCE: Department of Anesthesiology, University of Tsukuba School

of Medicine, Tsukuba 305-0006, Japan.

SOURCE: Current drug targets. CNS and neurological disorders, (2004

Dec) Vol. 3, No. 6, pp. 479-85. Ref: 95 Journal code: 101151150. ISSN: 1568-007X.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200503

ENTRY DATE: Entered STN: 7 Dec 2004

Last Updated on STN: 24 Mar 2005 Entered Medline: 23 Mar 2005

Noxious thermal, mechanical, or chemical stimuli evoke pain AΒ through excitation of the peripheral terminals called nociceptor, and many kinds of ionotropic and metabotropic receptors are involved in this process. Capsaicin receptor TRPV1 is a nociceptor-specific ion channel that serves as the molecular target of capsaicin. TRPV1 can be activated not only by capsaicin but also by noxious heat (with a thermal threshold >43 degrees C) or protons (acidification), all of which are known to cause pain in vivo. Studies using TRPV1-deficient mice have shown that TRPV1 is essential for selective modalities of pain sensation and for thermal hyperalgesia. One mechanism underlying inflammatory pain which is initiated by tissue damage/inflammation and characterized by hypersensitivity is sensitization of TRPV1. In addition to TRPV1, there are five thermosensitive ion channels in mammals, all of which belong to the TRP (transient receptor potential) super family. These include TRPV2, TRPV3, TRPV4, TRPM8 and TRPA1. These channels exhibit distinct thermal activation thresholds (> 52 degrees C for TRPV2, > approximately 34-38 degrees C for TRPV3, > approximately 27-35 degrees C for TRPV4, < approximately 25-28 degrees C for TRPM8 and < 17 degrees C for TRPA1) and are expressed in primary sensory neurons as well as other tissues. Some of the thermosensitive TRP channels are likely to be involved in thermal nociception, since their activation thresholds are within the noxious range of temperatures.

ANSWER 48 OF 52 MEDLINE on STN 1.9 ACCESSION NUMBER: 2004497964 MEDITNE PubMed ID: 15467255 DOCUMENT NUMBER:

Molecular mechanisms of thermosensation. TITLE:

Tominaga Makoto AUTHOR:

CORPORATE SOURCE: Section of Cell Signaling, Okazaki Institute for

Integrative Bioscience, National Institutes of Natural

Sciences, Okazaki, Aichi 444-8787, Japan..

tominaga@nips.ac.jp

SOURCE: Nippon yakurigaku zasshi. Folia pharmacologica Japonica,

(2004 Oct) Vol. 124, No. 4, pp. 219-27. Ref: 50

Journal code: 0420550. ISSN: 0015-5691.

PUB. COUNTRY: Japan

DOCUMENT TYPE: (ENGLISH ABSTRACT)

Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: Japanese

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200501

ENTRY DATE: Entered STN: 7 Oct 2004

> Last Updated on STN: 5 Jan 2005 Entered Medline: 4 Jan 2005

AB We feel a wide range of temperatures spanning from cold to heat. Within this range, temperatures over about 43 degrees C and below about 15 degrees C evoke not only a thermal sensation, but also a feeling of pain. In mammals, six thermosensitive ion channels have been reported, all of which belong to the TRP (transient receptor potential) super family. These include TRPV1 (VR1), TRPV2 (VRL-1), TRPV3, TRPV4, TRPM8 (CMR1), and TRPA1 (ANKTM1). These channels exhibit distinct thermal activation thresholds (>43 degrees C for TRPV1, >52 degrees C for TRPV2, >32-39 degrees C for TRPV3, >27-35 degrees C for TRPV4, <25-28 degrees C for TRPM8, and <17 degrees C for TRPA1) and are expressed in primary sensory neurons as well as other tissues. The involvement of TRPV1 in thermal nociception has been demonstrated by multiple methods, including the analysis of TRPV1-deficient mice. Temperature thresholds for activation of TRPV1, TRPV4, and TRPM8 are not fixed but changeable. Reduction of the temperature threshold for TRPV1 activation is thought to be one mechanism of inflammatory pain. Significant advances in thermosensation research have been made in the last several years with the cloning and characterization of thermosensitive TRP channels. With these clones in hand, we can begin to understand thermosensation from a molecular standpoint.

ANSWER 49 OF 52 MEDLINE on STN 2004452923 ACCESSION NUMBER: MEDLINE PubMed ID: 15362149 DOCUMENT NUMBER: TITLE: Thermosensation and pain.

Tominaga Makoto; Caterina Michael J AUTHOR:

Section of Cell Signaling, Okazaki Institute for CORPORATE SOURCE:

> Integrative Bioscience, National Institutes of Natural Sciences, Okazaki 444-8787, Japan.. tominaga@nips.ac.jp Journal of neurobiology, (2004 Oct) Vol. 61, No. 1, pp.

SOURCE:

3-12. Ref: 80

Journal code: 0213640. ISSN: 0022-3034.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

Priority Journals FILE SEGMENT:

ENTRY MONTH: 200412

ENTRY DATE: Entered STN: 14 Sep 2004 Last Updated on STN: 20 Dec 2004 Entered Medline: 13 Dec 2004

We feel a wide range of temperatures spanning from cold to heat. Within AB this range, temperatures over about 43 degrees C and below about 15 degrees C evoke not only a thermal sensation, but also a feeling of pain. In mammals, six thermosensitive ion channels have been reported, all of which belong to the TRP (transient receptor potential) superfamily. These include TRPV1 (VR1), TRPV2 (VRL-1), TRPV3, TRPV4, TRPM8 (CMR1), and TRPA1 (ANKTM1). These channels exhibit distinct thermal activation thresholds (>43 degrees C for TRPV1, >52 degrees C for TRPV2, > approximately 34-38 degrees C for TRPV3, > approximately 27-35 degrees C for TRPV4, < approximately 25-28 degrees C for TRPM8 and <17 degrees C for TRPA1), and are expressed in primary sensory neurons as well as other tissues. The involvement of TRPV1 in thermal nociception has been demonstrated by multiple methods, including the analysis of TRPV1-deficient mice. TRPV2, TRPM8, and TRPA1 are also very likely to be involved in thermal nociception, because their activation thresholds are within the noxious range of temperatures.

L9 ANSWER 50 OF 52 MEDLINE on STN ACCESSION NUMBER: 2004406460 MEDLINE DOCUMENT NUMBER: PubMed ID: 15194687

TITLE: 2-aminoethoxydiphenyl borate is a common activator of

TRPV1, TRPV2, and TRPV3.

AUTHOR: Hu Hong-Zhen; Gu Qihai; Wang Chunbo; Colton Craig K; Tang

Jisen; Kinoshita-Kawada Mariko; Lee Lu-Yuan; Wood Jackie D;

Zhu Michael X

CORPORATE SOURCE: Department of Physiology and Cell Biology, The Ohio State

University, Columbus Ohio 43210, USA.

CONTRACT NUMBER: DK057075 (United States NIDDK)

HL67379 (United States NHLBI) NS42183 (United States NINDS)

SOURCE: The Journal of biological chemistry, (2004 Aug 20) Vol.

279, No. 34, pp. 35741-8. Electronic Publication:

2004-06-11.

Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200502

ENTRY DATE: Entered STN: 17 Aug 2004

Last Updated on STN: 16 Feb 2005 Entered Medline: 15 Feb 2005

The transient receptor potential (TRP) superfamily contains a large number AB of proteins encoding cation permeable channels that are further divided into TRPC (canonical), TRPM (melastatin), and TRPV (vanilloid) subfamilies. Among the six TRPV members, TRPV1, TRPV2, TRPV3, and TRPV4 form heat-activated cation channels, which serve diverse functions ranging from nociception to osmolality regulation. Although chemical activators for TRPV1 and TRPV4 are well documented, those for TRPV2 and TRPV3 are lacking. Here we show that in the absence of other stimuli, 2-aminoethoxydiphenyl borate (2APB) activates TRPV1, TRPV2, and TRPV3, but not TRPV4, TRPV5, and TRPV6 expressed in HEK293 cells. In contrast, 2APB inhibits the activity of TRPC6 and TRPM8 evoked by 1-oleoly1-2-acety1-sn-glycerol and menthol, respectively. In addition, low levels of 2APB strongly potentiate the effect of capsaicin, protons, and heat on TRPV1 as well as that of heat on TRPV3 expressed in Xenopus oocytes. In dorsal root ganglia neurons, supra-additive stimulations were evoked by 2APB and capsaicin or 2APB and acid. Our data suggest the existence of a common activation mechanism for

TRPV1, TRPV2, and TRPV3 that may serve as a therapeutic target for pain management and treatment for diseases caused by hypersensitivity and temperature misregulation.

L9 ANSWER 51 OF 52 MEDLINE on STN ACCESSION NUMBER: 2004380255 MEDLINE DOCUMENT NUMBER: PubMed ID: 15283452

TITLE: The role of TRP channels in sensory neurons.

AUTHOR: Koltzenburg Martin

CORPORATE SOURCE: Neural Plasticity Unit, Institute of Child Health, 30

Guildford Street, London WC1N 1EH, UK.

SOURCE: Novartis Foundation symposium, (2004) Vol. 260, pp. 206-13;

discussion 213-20, 277-9. Ref: 59

Journal code: 9807767. ISSN: 1528-2511.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200410

ENTRY DATE: Entered STN: 1 Aug 2004

Last Updated on STN: 7 Oct 2004 Entered Medline: 6 Oct 2004

AB Two parallel processes characterize the contemporary pain field. Firstly, enormous progress is being made in the discovery of the cellular and molecular mechanisms responsible for the pathogenesis of pain and secondly, there is a growing appreciation that multiple mechanisms contribute to common clinical pain syndromes. The aim of this chapter is to provide a short overview how transient receptor potential (TRP) channels could contribute to acute and chronic pain states. TRP channels of the vanilloid family (TRPV1, TRPV2, TRPV3, TRPV4) are excited by heat stimuli whereas TRPM8 and ANKTM1 are cold responsive. TRPV1 and ANKTM1 are mediating the pungency of nociceptor-specific chemicals such as capsaicin or mustard oil. Sensitization of TRPV1 is an important mechanisms for heat hyperalgesia and thus the generation of chronic pain symptoms.

L9 ANSWER 52 OF 52 MEDLINE on STN ACCESSION NUMBER: 2003295581 MEDLINE DOCUMENT NUMBER: PubMed ID: 12822433

TITLE: Molecular mechanisms of nociception and thermosensation: structures, expressions and functions of capsaicin receptor

and its homologues.

AUTHOR: Numazaki Mitsuko; Tominaga Makoto

CORPORATE SOURCE: Mie University School of Medicine, Edobashi 2-174, Tsu, Mie

514-8507, Japan.

SOURCE: Seikagaku. The Journal of Japanese Biochemical Society,

(2003 May) Vol. 75, No. 5, pp. 359-71. Ref: 92

Journal code: 0413564. ISSN: 0037-1017.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: Japanese

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200309

ENTRY DATE: Entered STN: 26 Jun 2003

Last Updated on STN: 28 Sep 2003 Entered Medline: 26 Sep 2003 Welcome to STN International! Enter x:X

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EP 1953159

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PRIORITY APPLN. INFO.: EP 2007-101742 A 20070205

OTHER SOURCE(S): MARPAT 149:246509

GΙ

AB Title compds. [I; R1 = H, OH; R11 = H; R1R11 = O; R2, R3 = H, alkyl; R4 = H, halo, alkoxy, NO2, amino; R5 = H, halo, alkyl, OH, alkoxy, NO2, amino, fluoromethoxy, etc.; R4R5 = OCH2O, OCH2CH2; R6-R8 = H, halo; with a specific exclusion], were prepared Thus, 3-hydroxy-2-(1H-indol-3-yl)-5,5-dimethylcyclohex-2-enone (preparation given) and 4-methoxyphenylacetic anhydride in MeNO2 were treated every 10 min. with HClO4 over 1 h followed by stirring for an addnl. 1 h to give 6-(4-methoxybenzylidene)-3,3-dimethyl-3,4,6,7-tetrahydro-2H-5-oxa-7-azabenzo[c]fluoren-1-one. The latter was microwaved with NH3 in MeCN at 130°C for 25 min. to give 6-(4-methoxybenzyl)-3,3-dimethyl-2,3,6,7-tetrahydroindolo[2,3-c]quinolin-1-one. The latter inhibited PDE5A1 activity with -log IC50 = 8.52.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:709127 CAPLUS

DOCUMENT NUMBER: 149:24920

TITLE: Method for treating a pulmonary arterial hypertension

using ambrisentan

INVENTOR(S): Gerber, Michael J.; Dufton, Christopher

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 26pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| DATENT NO | | | | | | | | | | | | | | | | | | | | |
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| I | WO 2008073928 | | | | | A1 | | 20080619 WO 2007-US87058 | | | | | | | | | 20071211 | | | |
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| | | | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | ZA, | ZM, | ZW | | | | | | |
| | | RW: | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | | |

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PRIORITY APPLN. INFO.:

US 2006-869667P P 20061212

The present invention is based in part on a finding, in placebo-controlled clin. trials, that ambrisentan is effective for treatment of a pulmonary hypertension condition, more specifically pulmonary arterial hypertension (PAH), in subjects wherein the condition is relatively recently diagnosed. This method does not in any way negate ambrisentan therapy for subjects having a longer history of the condition. However, it recognizes that early intervention is advantageous. Benefits of the method to subjects having recent diagnosis (and poor prognosis without early intervention as exhibited, for example, in the NIH registry mentioned above) have now been quantified for the first time. PAH is associated with one or more of a congenital heart defect such as a systemic-to-pulmonary shunt or Eisenmenger 's syndrome, portal hypertension, use of a drug or toxin other than an anorexigen, thyroid disorder, glycogen storage disease, Gaucher disease, hereditary hemorrhagic telangiectasia, hemoglobinopathy, myeloproliferative disorder, splenectomy, pulmonary veno-occlusive disease and/or pulmonary capillary hemangiomatosis. Illustratively, in the placebo-controlled study described in Example 1 below, the median number of years for which PAH was present at baseline was 0.38 for subjects receiving placebo, 0.43 years for subjects receiving 2.5 mg ambrisentan daily, and 0.26 years for subjects receiving 5 mg ambrisentan daily. In the placebo-controlled study, the median number of years for which PAH was present at baseline was 0.54 for subjects receiving placebo, 0.33 years for subjects receiving 5 mg ambrisentan daily, and 0.60 years for subjects receiving 10 mg ambrisentan daily. primary objective of this study was to determine the effect of ambrisentan on exercise capacity in subjects with PAH. The secondary objectives of this study were to evaluate effects of ambrisentan on other clin. measures of PAH, as well as safety and tolerability of the study drug.

L2 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:933691 CAPLUS

DOCUMENT NUMBER: 149:246505
TITLE: Preparation of

6-benzyl-2,3,4,7-tetrahydro-indolo[2,3-c]quinolines as

phosphodiesterase-5 (PDE5)

inhibitors

INVENTOR(S): Weinbrenner, Steffen; Dunkern, Torsten; Marx,

Degenhard; Schmidt, Beate; Stengel, Thomas; Flockerzi, Dieter; Kautz, Ulrich; Hauser, Daniela; Diefenbach, Joerg; Christiaans, Johannes A. M.; Menge, Wiro M. P.

В.

PATENT ASSIGNEE(S): Nycomed G.m.b.H., Germany SOURCE: Eur. Pat. Appl., 47pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATEN' | NO. | | | KIND DATE | | | | | APPL | ICAT | DATE | | | | | | |
|---------------|------|-----|-----|-----------|-----|-------------------------|------|-----|------|------|------|-----|-----|----------|-----|-----|--|
| | | | | | | | | | | | | | | | | | |
| EP 19 | 3159 | | | A1 | | 20080806 EP 2007-101742 | | | | | | | | 20070205 | | | |
| R | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | ΙE, | |
| | IS, | ΙΤ, | LI, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | AL, | |
| | BA, | HR, | MK, | RS | | | | | | | | | | | | | |
| WO 2008095835 | | | | A1 | | 2008 | 0814 | , | WO 2 | 008- | EP51 | 076 | | 20080130 | | | |
| W | AE, | AG, | AL, | AM, | ΑO, | ΑT, | ΑU, | ΑZ, | ΒA, | BB, | BG, | BH, | BR, | BW, | BY, | BZ, | |

CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO::

EP 2007-101742

A 20070205

R11 R3 R3 R4 R5 R7 R6 I

GΙ

Title compds. [I; R1 = H, OH; R11 = H; R1R11 = O; R2, R3 = H, alkyl; R4 = AB H, halo, alkoxy, NO2, amino; R5 = H, halo, alkyl, OH, alkoxy, NO2, amino, fluoromethoxy, etc.; R4R5 = OCH2O, OCH2CH2; R6-R8 = H, halo; with a specific exclusion], were prepared Thus, 3-hydroxy-2-(1H-indol-3-yl)-5,5-dimethylcyclohex-2-enone (preparation given) and 4-methoxyphenylacetic anhydride in MeNO2 were treated every 10 min. with HClO4 over 1 h followed by stirring for an addnl. 1 h to give 6-(4-methoxybenzylidene)-3,3-dimethyl-3,4,6,7-tetrahydro-2H-5-oxa-7azabenzo[c]fluoren-1-one. The latter was microwaved with NH3 in MeCN at 130 °C for 25 min. to give 6-(4-methoxybenzy1)-3,3-dimethy1-2,3,6,7tetrahydroindolo[2,3-c]quinolin-1-one. The latter inhibited PDE5A1 activity with $-\log IC50 = 8.52$. REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 4 OF 23 MEDLINE on STN

ACCESSION NUMBER: 2008719174 IN-PROCESS

DOCUMENT NUMBER: PubMed ID: 18985812

TITLE: Sildenafil does not influence hepatic venous pressure

gradient in patients with cirrhosis.

AUTHOR: Clemmesen Jens-Otto; Giraldi Annamaria; Ott Peter; Dalhoff

Kim; Hansen Bent-Adel; Larsen Fin-Stolze

CORPORATE SOURCE: Department of Hepatology A-2121, Rigshospitalet,

Blegdamsvej 9, Copenhagen DK-2100, Denmark..

otto.clemmesen@rh.regionh.dk

SOURCE: World journal of gastroenterology: WJG, (2008 Oct 28) Vol.

14, No. 40, pp. 6208-12.

Journal code: 100883448. ISSN: 1007-9327.

PUB. COUNTRY: China

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: NONMEDLINE; IN-DATA-REVIEW; IN-PROCESS; NONINDEXED;

Priority Journals

ENTRY DATE: Entered STN: 6 Nov 2008

Last Updated on STN: 6 Nov 2008

AIM: To investigate if sildenafil increases splanchnic blood flow and AB changes the hepatic venous pressure gradient (HVPG) in patients with cirrhosis. Phosphodiesterase type-5 inhibitors are valuable in the treatment of erectile dysfunction and pulmonary hypertension in patients with end-stage liver disease. However, the effect of phosphodiesterase type-5 inhibitors on splanchnic blood flow and portal hypertension remains essentially unknown. METHODS: Ten patients with biopsy proven cirrhosis (five females/five males, mean age 54 + / - 8 years) and an HVPG above 12mmHq were studied after informed consent. Measurement of splanchnic blood flow and the HVPG during liver vein catheterization were done before and 80 min after oral administration of 50 mg sildenafil. Blood flow was estimated by use of indocyanine green clearance technique and Fick's principle, with correction for non-steady state. RESULTS: The plasma concentration of sildenafil was 222 +/- $\bar{1}36$ ng/mL 80 min after administration. Mean arterial blood pressure decreased from 77 + /- 7 mmHg to 66 +/- 12 mmHg, P = 0.003, while the splanchnic blood flow and oxygen

In spite of arterial blood pressure decreases 80 min after administration of the phosphodiesterase type-5 inhibitor sildenafil, the present study could not demonstrate any clinical relevant influence on

consumption remained unchanged at 1.14 +/- 0.71 L/min and 2.3 +/- 0.6 mmol/min, respectively. Also the HVPG remained unchanged (18 +/- 2 mmHg vs 16 +/- 2 mmHg) with individual changes ranging from -8 mmHg to +2 mmHg. In seven patients, HVPG decreased and in three it increased. CONCLUSION:

L2 ANSWER 5 OF 23 MEDLINE on STN

ACCESSION NUMBER: 2008728916 IN-PROCESS

DOCUMENT NUMBER: PubMed ID: 18631254

TITLE: Acute administration of sildenafil enhances hepatic cyclic

guanosine monophosphate production and reduces hepatic

sinusoid resistance in cirrhotic patients.

AUTHOR: Lee Kuei-Chuan; Yang Ying-Ying; Wang Ying-Wen; Hou

Ming-Chih; Lee Fa-Yauh; Lin Han-Chieh; Lee Shou-Dong

CORPORATE SOURCE: Division of Gastroenterology, Department of

splanichnic blood flow, oxygen consumption or the HVPG.

Gastroenterology, Department of Medicine, Taipei Veterans

General Hospital, Taipei, Taiwan.

SOURCE: Hepatology research: the official journal of the Japan

Society of Hepatology, (2008 Dec) Vol. 38, No. 12, pp.

1186-93. Electronic Publication: 2008-07-04.

Journal code: 9711801. ISSN: 1386-6346.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: NONMEDLINE; IN-DATA-REVIEW; IN-PROCESS; NONINDEXED

ENTRY DATE: Entered STN: 13 Nov 2008

Last Updated on STN: 13 Nov 2008

AB Aim: In liver cirrhosis, the increased production of nitric oxide (NO) contributes to increased systemic and splanchnic vasodilatation. The inhibition of phosphodiesterase-5 (PDE-

inhibition of phosphodiesterase-5 (PDE-5), an enzyme responsible for the degradation of cyclic guanosine monophosphate (cGMP), is widely used in the treatment of erectile dysfunction. The aim of our study is to evaluate the overall effects of PDE-5 inhibitor administration on splanchnic, pulmonary and systemic hemodynamics in cirrhotic patients. Methods: Sildenafil, a specific PDE-5 inhibitor, was administrated orally to cirrhotic patients (n = 7) to see the hemodynamic changes. A control group receiving a placebo was used as a point of comparison (n = 6).

Results: Compared to the control group, the hepatic vein NO and cGMP levels were significantly increased after sildenafil administration in the sildenafil group (NO from 112.3 +/- 43.5 to 325.3 +/- 117.5 nM, P = 0.018; cGMP from 7.3 +/- 0.4 to 19.2 +/- 4.2 pmol, P = 0.018). The hepatic venous pressure gradient in the sildenafil group did not differ from that of the control group. However, a significantly decreased hepatic sinusoidal resistance in the sildenafil group (1999 +/- 1243 vs. 1563 +/-1014 dyne/s/cm(-5), P < 0.05) was noted. The study also found that the right arterial pressure, mean pulmonary arterial pressure and pulmonary capillary wedge pressure were reduced at 60 min after administration, compared with the basal parameters in cirrhotic patients receiving sildenafil (RAP1.3 \pm -2.0 vs -0.6 \pm -1.3 mmHg, MPAP 14.1 \pm -11.3 vs 11.7 + -9.5 mmHg, PCWP 4.6 + -1.7 vs 2.9 + -1.6 mmHg, P < 0.05respectively). Conclusions: An oral administration of 50 mg of sildenafil significantly decreased the mean pulmonary arterial pressure and hepatic sinusoid resistance with a significant increase in hepatic NO and cGMP production, and did not worsen portal hypertension in cirrhotic patients.

L2 ANSWER 6 OF 23 MEDLINE on STN ACCESSION NUMBER: 2008165128 MEDLINE DOCUMENT NUMBER: PubMed ID: 18280605

TITLE: Significant improvement of portopulmonary hypertension

after 1-week terlipressin treatment.

AUTHOR: Kalambokis Georgios; Korantzopoulos Panagiotis; Nikas

Spyros A; Theodorou Areti; Tsianos Epameinondas V

CORPORATE SOURCE: 1st Division of Internal Medicine, University of Ioannina,

Medical School, 45110 Ioannina, Greece.

SOURCE: Journal of hepatology, (2008 Apr) Vol. 48, No. 4, pp.

678-80. Electronic Publication: 2008-01-28.

Journal code: 8503886. ISSN: 0168-8278.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: (CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200808

ENTRY DATE: Entered STN: 8 Mar 2008

Last Updated on STN: 8 Aug 2008 Entered Medline: 7 Aug 2008

AB Cirrhosis associated with moderate and severe portopulmonary hypertension carries a poor prognosis. Optimal management has not yet been defined. Current treatment options, such as prostacyclin analogues, endothelin antagonists, and phosphodiesterase-5 inhibitors, are characterized by slow onset of action and various adverse effects, particularly in patients with advanced cirrhosis. Here, we report the significant reduction of pulmonary arterial pressure after 1-week terlipressin treatment in a patient with concomitant hepato-renal syndrome. Terlipressin could be a novel and safe treatment for portopulmonary hypertension.

L2 ANSWER 7 OF 23 MEDLINE on STN ACCESSION NUMBER: 2008117482 MEDLINE DOCUMENT NUMBER: PubMed ID: 18275769

TITLE: [Diagnosis and treatment of pulmonary hypertension].

Diagnostico y tratamiento de la hipertension pulmonar.

AUTHOR: Roman J Sanchez; Hernandez F J Garcia; Palma M J Castillo;

Medina C Ocana

CORPORATE SOURCE: Unidad de Colagenosis e Hipertension Pulmonar, Servicio de

Medicina Interna, Hospital Universitario Virgen del Rocio,

Sevilla, Espana.

SOURCE: Revista clinica espanola, (2008 Mar) Vol. 208, No. 3, pp.

142-55. Ref: 71

Journal code: 8608576. ISSN: 0014-2565.

PUB. COUNTRY: Spain

DOCUMENT TYPE: (ENGLISH ABSTRACT)

Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: Spanish

Priority Journals FILE SEGMENT:

ENTRY MONTH: 200806

ENTRY DATE: Entered STN: 16 Feb 2008

> Last Updated on STN: 24 Jun 2008 Entered Medline: 23 Jun 2008

AΒ Pulmonary arterial hypertension is an idiopathic process or can be associated with another circumstances (connective tissue diseases,

congenital heart disease, portal hypertension,

exposure to appetite suppressants or another drugs or infectious agents such as HIV). Most patients are diagnosed as the result of an evaluation of symptoms, whereas others are diagnosed incidentally or during screening of asymptomatic populations at risk. We reviews systematic screening for the approach to diagnosing pulmonary arterial hypertension. A diagnostic algorithm can guide the evaluation but it can be modified according to specific clinical circumstances. The number of therapeutic options has increased.in the last years. We reviews the use of calcium-channel blockers, prostacyclin (and analogues), endothelin-receptor antagonists, and phosphodiesterase-5 inhibitors, and the use of

combination therapy, and provides specific recommendations about the

actual treatment.

ANSWER 8 OF 23 MEDLINE on STN ACCESSION NUMBER: 2007001493 MEDLINE DOCUMENT NUMBER: PubMed ID: 17197488

PDE-5 inhibitors lower portal TITLE:

and pulmonary pressure in portopulmonary

hypertension.

AUTHOR: Deibert P; Bremer H; Roessle M; Kurz-Schmieg A-K; Kreisel W SOURCE: The European respiratory journal: official journal of the European Society for Clinical Respiratory Physiology, (2007

Jan) Vol. 29, No. 1, pp. 220-1.

Journal code: 8803460. ISSN: 0903-1936.

PUB. COUNTRY: Switzerland DOCUMENT TYPE: (CASE REPORTS) Commentary

Letter

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200703

ENTRY DATE: Entered STN: 4 Jan 2007

> Last Updated on STN: 24 Mar 2007 Entered Medline: 20 Mar 2007

ANSWER 9 OF 23 MEDLINE on STN 2007497047 ACCESSION NUMBER: MEDITNE PubMed ID: 17715635 DOCUMENT NUMBER:

TITLE: Hepatopulmonary syndrome and portopulmonary hypertension:

what's new?.

AUTHOR: Colle Isabelle; Van Steenkiste Christophe; Geerts Anja; Van

Vlierberghe Hans

CORPORATE SOURCE: Department of Hepatology and Gastroenterology, Ghent

University Hospital, Ghent, Belgium..

Isabelle.Colle@ugent.be

Acta gastro-enterologica Belgica, (2007 Apr-Jun) Vol. 70, SOURCE:

No. 2, pp. 203-9. Ref: 67

Journal code: 0414075. ISSN: 0001-5644.

PUB. COUNTRY: Belgium

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200710

ENTRY DATE: Entered STN: 25 Aug 2007

Last Updated on STN: 12 Oct 2007 Entered Medline: 11 Oct 2007

Hepatopulmonary syndrome (HPS) is found in 4-47% of patients with AB cirrhosis and is characterized by intrapulmonary vascular dilatations especially in the basal parts of the lung. Liver injury and/or portal hypertension trigger the release of endothelin-1, TNF-alpha, cytokines and mediate vascular shear stress and release of nitric oxide and carbon monoxide, all contributing to intrapulmonary vasodilation. Severe HPS increases mortality (30%) after liver transplantation, especially if Pa O2 is below 50 mmHg. The diagnosis is made by calculating the alveolar-arterial oxygen gradient and by performing a contrast echocardiography. Medical therapy fails and the only long-term treatment available is liver transplantation. More than 85% experience significant improvement or complete resolution in hypoxaemia, but this may take more than 1 year. Portopulmonary hypertension (PPHT) occurs in 2-8% of the patients with cirrhosis. Imbalance between vasodilating (decreased pulmonary expression of eNOS and prostacyclin I2) and vasoconstrictive agents (increased expression of ET-1 and angiotensin 1) may be responsible for misquided angiogenesis and pulmonary hypertension. The diagnosis is made by performing an echocardiography and a right heart catheterisation when systolic pulmonary artery pressure is higher than 30 mmHg on echocardiography. Although prostacyclin analogues are efficacious, adverse effects in terms of safety, tolerability and drug delivery occur. Bosentan is probably the therapy of choice for patients with PPHT because it decreases pulmonary but can also diminish portal hypertension. Sildenafil, a phosphodiesterase-5 inhibitor is used for idiopathic pulmonary hypertension, however, it should be used cautiously in patients with portal hypertension as it may increase portal hypertension by splanchnic vasodilation.

L2 ANSWER 10 OF 23 MEDLINE on STN

ACCESSION NUMBER: 2007523904 IN-PROCESS

DOCUMENT NUMBER: PubMed ID: 17623085

TITLE: Phosphodiesterase 5 inhibitors lower both portal and pulmonary pressure in

portopulmonary hypertension: a case report.

AUTHOR: Bremer Hinrich C; Kreisel Wolfgang; Roecker Kai; Dreher

Michael; Koenig Daniel; Kurz-Schmieg Anna Katharina; Blum

Hubert E; Roessle Martin; Deibert Peter

CORPORATE SOURCE: Department of Gastroenterology, Hepatology, Endocrinology

and Infectious Diseases, University Hospital, Freiburg,

Germany.. wolfgang.kreisel@uniklinik-freiburg.de

SOURCE: Journal of medical case reports, (2007) Vol. 1, pp. 46.

Electronic Publication: 2007-07-10.

Journal code: 101293382. E-ISSN: 1752-1947.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: NONMEDLINE; IN-DATA-REVIEW; IN-PROCESS; NONINDEXED

ENTRY DATE: Entered STN: 8 Sep 2007

Last Updated on STN: 8 Dec 2007

AB ABSTRACT: BACKGROUND: Portopulmonary hypertension (PPHTN) is a severe

complication in liver cirrhosis. PDE5 inhibitors lower pulmonary arterial pressure (PAP) in PPHTN. However, their effect on portal hypertension has not yet been investigated. CASE PRESENTATION: A 55 year old male patient presented with PPHTN and alcoholic liver cirrhosis. 10 mg of Tadalafil, a PDE5 inhibitor with a long half-life, was administered orally under continuous monitoring of pulmonary and portal hemodynamics. For maintenance therapy the patient received Sildenafil 20 mg bid. Tadalafil lowered mean PAP from 45 to 39 mmHg within 60 minutes. Cardiac output (CO) increased from 6.8 to 7.9 l/min. Central venous pressure (CVP) remained stable at 3 mmHg. Systolic and diastolic blood pressure was lowered from 167/89 to 159/86 mmHq. Pulse rate increased from 75 to 87 per min. Wedged hepatic vein pressure (WHVP) decreased from 21 to 18 mm Hq, hepatovenous pressure gradient (HVPG) decreased from 10 to 7 mmHg. Hemodynamic monitoring after 6 months of Sildenafil therapy revealed a sustained lowering of mean PAP. HVPG remained constant at 10 mmHg. Cardiac and pulmonary performance had further improved. CONCLUSION: This case report shows for the first time, that phosphodiesterase 5 inhibitors lower both portal and pulmonary pressure in portopulmonary hypertension.

L2 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1123280 CAPLUS

DOCUMENT NUMBER: 145:449221

TITLE: Roflumilast and roflumilast N-oxide for the treatment

of pulmonary hypertension, and combinations with

phosphodiesterase 5 inhibitors

INVENTOR(S): Beume, Rolf; Hatzelmann, Armin; Marx, Degenhard;

Schudt, Christian; Tenor, Hermann; Eddahibi, Saadia;

Adnot, Serge

PATENT ASSIGNEE(S): Altana Pharma AG, Germany

SOURCE: PCT Int. Appl., 40pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PAT | ΓENT | NO. | | | KIN | D | DATE | | | APPL | ICAT | DATE | | | | | | | | |
|-----|---------------|------|--------|-----|-----|------------|------------------|------|------------------|---------------------------|-----------|-----------|----------|-----|----------|----------|-----|--|--|--|
| WO | 2006 | 1114 |
95 | | A1 | _ |
2006 | 1026 | | WO 2 |
006-: | | 20060412 | | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | ΑZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | | | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | | | |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KΕ, | KG, | KM, | KN, | KP, | KR, | | | |
| | | KΖ, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | LY, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | | | |
| | | MZ, | NA, | NG, | NΙ, | NO, | NΖ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | | | |
| | | SG, | SK, | SL, | SM, | SY, | ТJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UΖ, | VC, | | | |
| | VN, YU, ZA | | | | ZM, | ZW | | | | | | | | | | | | | | |
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| | | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | $\mathrm{ML}_{m{\prime}}$ | MR, | NE, | SN, | TD, | ΤG, | BW, | GH, | | | |
| | | GM, | KΕ, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | ΑM, | AΖ, | BY, | | | |
| | | KG, | KΖ, | MD, | RU, | ТJ, | $^{\mathrm{TM}}$ | | | | | | | | | | | | | |
| ΑU | 2006 | 2373 | 00 | | A1 | | 2006 | 1026 | | AU 2 | 006- | | | | | | | | | |
| CA | 2604 | 295 | | | A1 | | 2006 | 1026 | 1 | CA 2 | 006- | | | | | | | | | |
| EP | 1874 | 309 | | | A1 | | 2008 | 0109 | | EP 2 | 006- | 06-725734 | | | 2 | 412 | | | | |
| | R: | ΑT, | • | • | • | | • | | | • | • | | | | • | • | • | | | |
| | | IS, | ΙΤ, | LI, | LT, | LU, | LV, | MC, | ΝL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | AL, | | | |
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| - | 2008 | | | | _ | | 2008 | | | | | 5070 | | | 20060412 | | | | | |
| | 2007 | | _ | | А | | 2008 | | | | | 1271 | _ | | 20071012 | | | | | |
| | 1011 | | - | | А | | 2008 | | CN 2006-80013022 | | | | | | | | | | | |
| ИО | NO 2007005662 | | | | | A 20071107 | | | | NO 2007-5662 | | | | | | 20071107 | | | | |

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IN 2007MN01889 A 20071207 IN 2007-MN1889 KR 2008002950 A 20080104 KR 2007-726282
                                                                       20071112
                                              KR 2007-726282
EP 2005-103147
                         A
                                                                       20071112
                                              EP 2005-103147 A 20050419 WO 2006-EP61557 W 20060412
PRIORITY APPLN. INFO.:
     The invention discloses the use of roflumilast, roflumilast-N-Oxide, or a
AB
     pharmaceutically acceptable salt of either for the treatment of pulmonary
     hypertension. The invention addnl. discloses the use of roflumilast,
     roflumilast-N-oxide or a pharmaceutically acceptable salt of either in
     combination with a phosphodiesterase 5 inhibitor, or a
     pharmaceutically acceptable salt thereof, for the treatment of pulmonary
     hypertension.
REFERENCE COUNT:
                          16
                                 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
                                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 12 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:
                         2006:978593 CAPLUS
DOCUMENT NUMBER:
                          145:348634
TITLE:
                          Organic nitric oxide enhancing salts of angiotensin II
                          antagonists, compositions and methods of use
INVENTOR(S):
                          Garvey, David, S.; Cai, Xiong; Lin, Chia-En;
                          Ranatunge, Ramini, R.; Stevenson, Cheri, A.; Wey,
                          Shiow-Jyi
                          Nitromed, Inc., USA
PATENT ASSIGNEE(S):
                          PCT Int. Appl., 126pp.
SOURCE:
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
                          English
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
                                                                     DATE
     PATENT NO. KIND DATE APPLICATION NO.
                                             _____
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      WO 2006099058
      A2
      20060921
      WO 2006-US8441

      WO 2006099058
      A3
      20070518

                                                                       20060309
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
             KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
             MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
             SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
             VN, YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
                      A1
                               20060921 AU 2006-223392
     AU 2006223392
                                                                       20060309
                          A1
                                             CA 2006-2597444
     CA 2597444
                                 20060921
                                                                      20060309
                                            EP 2006-737602
                          A2
     EP 1861093
                               20071205
                                                                       20060309
         R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,
             BA, HR, MK, YU
                                  20080821
                                              JP 2008-500923
     JP 2008533031
                           Τ
                                                                       20060309
                                              US 2005-659401P P 20050309
US 2005-750773P P 20051215
WO 2006-US8441 W 20060309
PRIORITY APPLN. INFO.:
```

OTHER SOURCE(S): MARPAT 145:348634

AB The invention describes compns. and kits comprising at least one organic nitric oxide enhancing salt of an angiotensin II antagonist, and, optionally, at least one nitric oxide enhancing compound and/or at least one therapeutic agent. The invention also provides methods for (a) treating cardiovascular diseases; (b) treating renovascular diseases; (c) treating

diabetes; (d) treating diseases resulting from oxidative stress; (e) treating endothelial dysfunctions; (f) treating diseases caused by endothelial dysfunctions; (g) treating cirrhosis; (h) treating pre-eclampsia; (j) treating osteoporosis; (k) treating nephropathy; (1) treating peripheral vascular diseases; (m) treating portal hypertension; (n) treating ophthalmic disorders; (o) treating metabolic syndrome; and (p) treating hyperlipidemia. The organic nitric oxide enhancing compds. that form salts with the angiotensin II antagonists are organic nitrates, organic nitrites, nitrosothiols, thionitrites,

thionitrates, NONOates, heterocyclic nitric oxide donors and/or nitroxides. The heterocyclic nitric oxide donors are furoxans, sydnonimines, oxatriazole-5-ones and/or oxatriazole-5-imines.

L2 ANSWER 13 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:149404 CAPLUS

DOCUMENT NUMBER: 144:205821

TITLE: 2-Phenyl-substituted imidazotriazinone derivative

phosphodiesterase 5 inhibitors for

the treatment of symptoms treatable by increasing cGMP

levels

INVENTOR(S):
Haning, Helmut

PATENT ASSIGNEE(S): Bayer Healthcare A.-G., Germany

SOURCE: PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PAT | TENT : | NO. | | | KIND DATE | | | | | APPLICATION NO. | | | | | | | DATE | | |
|----------------|----------------|------|------|-----|-------------|--------|------|------|-------------|-----------------|--------------|-----------|-------|--------|-------|----------|------|---------|--|
| WO | 2006 | 0157 | 15 | | A1 2006021 | | | | | WO | 2 |
005-I | EP80. |
57 | | 2 | 0050 |
723 | |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | ΑZ, | BA, | BE | 3, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | D2 | Ζ, | EC, | EE, | EG, | ES, | FΙ, | GB, | GD, | |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | ΙS | Ξ, | JP, | ΚE, | KG, | KM, | KP, | KR, | KΖ, | |
| | | LC, | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MI | Ο, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | |
| | | NG, | NI, | NO, | NZ, | OM, | PG, | PH, | PL, | PΊ | Γ, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | |
| | | | | | | | TN, | | | | | | | | | | | | |
| | | ZA, | ZM, | ZW | | | | | | | | | | | | | | | |
| | RW: | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | ΕE | Ξ, | ES, | FI, | FR, | GB, | GR, | HU, | ΙE, | |
| | | IS, | ΙΤ, | LT, | LU, | LV, | MC, | NL, | PL, | P7 | Γ, | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, | |
| | | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | MI | J, | MR, | ΝE, | SN, | TD, | ΤG, | BW, | GH, | |
| | | GM, | ΚE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ | Ζ, | TZ, | UG, | ZM, | ZW, | AM, | AZ, | BY, | |
| | | KG, | KΖ, | MD, | RU, | ТJ, | TM | | | | | | | | | | | | |
| DE | E 102004038328 | | | | A1 | | 2006 | 0316 | | DE | 20 | 004 - 1 | 1020 | 0403 | 8328 | 2 | 0040 | 806 | |
| ΑU | 2005 | 2704 | 46 | | A1 | | 2006 | 0216 | | ΑU | 20 | 005 - 2 | 2704 | 46 | | 2 | 0050 | 723 | |
| | | | | | A1 20060216 | | | | | | | | | | | | | | |
| EP | 1776 | 120 | | | A1 20070425 | | | | | EP 2005-764196 | | | | | | 20050723 | | | |
| | R: | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | ΕE | Ξ, | ES, | FI, | FR, | GB, | GR, | HU, | ΙE, | |
| | | IS, | IT, | LI, | LT, | LU, | LV, | MC, | NL, | PΙ | | PT, | RO, | SE, | SI, | SK, | TR, | HR | |
| CN | 1010 | 3553 | 9 | | A | | 2007 | 0912 | | CN | 20 | 005-8 | 3003 | 4023 | | 2 | 0050 | 723 | |
| JP 2008509101 | | | | | | | | | | | | | | | | | | | |
| BR | 2005 | 0141 | 23 | | Α | | 2008 | 0527 | | BR | 20 | 005 - 3 | 1412 | 3 | | 2 | 0050 | 723 | |
| IN 2007DN01126 | | | | | | | 2007 | 0427 | | ΙN | 20 | 007-I | ON11: | 26 | | 2 | 0070 | 212 | |
| KR 2007041613 | | | | | | | 2007 | 0418 | | KR | 20 | 007- | 7052 | 45 | | 20070305 | | | |
| NO 2007001231 | | | | | | | 2007 | 0503 | | ИО | NO 2007-1231 | | | | | | | | |
| US | 2007 | 0299 | 880 | | A1 | | 2007 | 1227 | | US | 20 | 007-6 | 6596 | 24 | | 2 | 0070 | 905 | |
| RIT | Y APP | LN. | INFO | .: | | | | | | DE | 20 | 004 - 1 | 1020 | 0403 | 83287 | A 2 | 0040 | 806 | |
| | | | | | | | | WO | 2005-EP8057 | | | | | √ 2 | 0050 | 723 | | | |
| ים כו | TIDCE | 191. | | | MAD. | 1/1/1• | 2058 | 21 | | | | | | | | | | | |

OTHER SOURCE(S): MARPAT 144:205821

AB The invention relates to the use of PDE 5 inhibitors,

and especially of known 2-phenyl-substituted imidazotriazinone derivs., for producing medicaments for the treatment of symptoms that can be treated by increasing cGMP levels in certain tissues, e.g. acute myocardial infarction and damage caused by reperfusion, various symptoms in the female and male reproductive system and urogenital tract, gastrointestinal diseases, damage caused by diabetes, and liver failure.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 14 OF 23 MEDLINE on STN ACCESSION NUMBER: 2006614048 MEDLINE DOCUMENT NUMBER: PubMed ID: 17048047

TITLE: Portopulmonary hypertension.

AUTHOR: Halank Michael; Ewert Ralf; Seyfarth Hans-Juergen; Hoeffken

Gert

CORPORATE SOURCE: Carl Gustav Carus University Dresden, Internal Medicine I,

Fetscherstr. 74, 01307 Dresden, Germany.

SOURCE: Journal of gastroenterology, (2006 Sep) Vol. 41, No. 9, pp.

837-47. Ref: 86

Journal code: 9430794. ISSN: 0944-1174.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200701

ENTRY DATE: Entered STN: 19 Oct 2006

Last Updated on STN: 10 Jan 2007 Entered Medline: 9 Jan 2007

AΒ Portopulmonary hypertension (PPHT) is defined as precapillary pulmonary hypertension accompanied by hepatic disease or portal hypertension. Pulmonary hypertension results from excessive pulmonary vascular remodeling and vasoconstriction. These histological alterations have been indistinguishable from those of other forms of pulmonary arterial hypertension. Factors involved in the pathogenesis of PPHT include volume overload, hyperdynamic circulation, and circulating vasoactive mediators. The disorder has a substantial impact on survival and requires focused treatment. Liver transplantation in patients with moderate to severe PPHT is associated with a significantly reduced survival rate. The best medical treatment for patients with PPHT is controversial; most authors currently regard continuous intravenous application of prostacyclin as the treatment of choice for patients with severe PPHT. There is only very limited reported experience with inhaled prostacyclin or its analog, iloprost. Increasing evidence of the efficacy of the endothelin-receptor antagonist bosentan and of the phosphodiesterase-5 inhibitor sildenafil is emerging in highly selected patients with PPHT. In the future, a combination therapy of the above-mentioned agents might become a therapeutic option. Other agents such as beta-blockers seem to be harmful to patients with moderate to severe portopulmonary hypertension. Up-to-date, randomized, double-blind, controlled clinical trials are lacking and are needed urgently.

L2 ANSWER 15 OF 23 MEDLINE on STN ACCESSION NUMBER: 2006007040 MEDLINE DOCUMENT NUMBER: PubMed ID: 16393289

TITLE: Effect of vardenafil, an inhibitor of

phosphodiesterase-5, on portal

haemodynamics in normal and cirrhotic liver -- results of a

pilot study.

AUTHOR: Deibert P; Schumacher Y-O; Ruecker G; Opitz O G; Blum H E;

Rossle M; Kreisel W

Department of Preventive and Rehabilitative Sports CORPORATE SOURCE:

Medicine, University Hospital Freiburg, Freiburg, Germany.

Alimentary pharmacology & therapeutics, (2006 Jan 1) Vol. SOURCE:

23, No. 1, pp. 121-8.

Journal code: 8707234. ISSN: 0269-2813.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200605

ENTRY DATE: Entered STN: 6 Jan 2006

> Last Updated on STN: 4 May 2006 Entered Medline: 3 May 2006

AΒ BACKGROUND: Dysregulation of the cyclic guanosine 3',5' monophosphate-nitric oxide system is in part responsible for

portal hypertension in cirrhosis. AIM: To test the effects of inhibitors of phosphodiesterase-5 on portal

haemodynamics. METHODS: To 18 healthy subjects and 18 patients with Child

A liver cirrhosis, 10 mg of vardenafil, an inhibitor of phosphodiesterase-5, were administered orally. Doppler

sonographic measurements of hepatic and splanchnic blood flow, systemic blood pressure and heart rate were recorded before, 1 h after, and 48 h after the application. Vardenafil plasma levels were determined after 1 h. In five patients, invasive registration of free and wedged hepatic vein pressure was performed. RESULTS: Portal venous flow increased in patients from 0.82 +/- 0.30 L/min (mean +/- s.d.) by 26% (CI: 16-37%, P = 0.0004) and in healthy subjects from 0.75 \pm 0.20 L/min (mean \pm s.d.) by 19% (CI: 9-28%; P = 0.0010). Celiac and hepatic artery resistivity indices rose significantly. Systemic blood pressure decreased slightly in patients. The wedged hepatic venous pressure gradient decreased in four of five patients with liver cirrhosis. Vardenafil plasma levels were higher in patients (14 +/- 10 microg/L) than in healthy subjects (9 +/- 6 microg/L; n.s.). CONCLUSIONS: Inhibition of phosphodiesterase-

5 increases portal flow and lowers portal

pressure by a decrease in sinusoidal resistance and may be a novel therapeutic strategy for portal hypertension.

ANSWER 16 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1303561 CAPLUS

DOCUMENT NUMBER: 144:285886

TITLE: Bosentan for the treatment of pulmonary arterial

> hypertension. (II) Antoniu, Sabina A.

Clinic of Pulmonary Disease, University of Medicine CORPORATE SOURCE:

and Pharmacy, Iasi, 700070, Rom. Therapy (2005), 2(6), 849-852

SOURCE: CODEN: THERCR; ISSN: 1475-0708

PUBLISHER: Future Drugs Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AUTHOR(S):

Portopulmonary hypertension is defined as pulmonary arterial AΒ

hypertension occurring in the presence of portal

hypertension. It is classified as a subset of pulmonary arterial

hypertension and accordingly it is defined hemodynamically.

Portopulmonary hypertension shares the main pathol. features as well as diagnostic approach with other forms of pulmonary arterial hypertension. Several nonpharmacol. and pharmacol. approaches are currently available. Among the pharmacol. approaches prostacycline and its derivs.,

phosphodiesterase-5 inhibitors such as sildenafil and

endothelin receptor antagonists such as bosentan, have been used in portopulmonary hypertension treatment. This is a case series report on the long-term efficacy of bosentan treatment for severe (New York Heart Association functional Class III and IV) portopulmonary hypertension.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 17 OF 23 MEDLINE ON STN ACCESSION NUMBER: 2005615688 MEDLINE DOCUMENT NUMBER: PubMed ID: 16294183

TITLE: [Pulmonary arterial hypertension]. Hypertension arterielle pulmonaire.

AUTHOR: Montani D; Jais X; Sitbon O; Capron F; Simonneau G; Humbert

Μ

CORPORATE SOURCE: Centre des Maladies Vasculaires Pulmonaires, UPRES EA2705,

Service de Pneumologie et Reanimation respiratoire, Hopital Antoine-Beclere, Universite Paris-Sud, Assistance Publique,

Hopitaux de Paris, Clamart, France.

SOURCE: Revue des maladies respiratoires, (2005 Sep) Vol. 22, No.

4, pp. 651-66. Ref: 59

Journal code: 8408032. ISSN: 0761-8425.

PUB. COUNTRY: France

DOCUMENT TYPE: (ENGLISH ABSTRACT)

Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: French

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200512

ENTRY DATE: Entered STN: 22 Nov 2005

Last Updated on STN: 24 Dec 2005 Entered Medline: 23 Dec 2005

AΒ INTRODUCTION: Pulmonary arterial hypertension (PAH) is a rare condition characterised by progressively elevated pulmonary arterial resistance leading to right heart failure. STATE OF THE ART: A recent classification distinguishes idiopathic PAH, familial PAH and PAH secondary to other conditions (connective tissue disease, congenital heart disease, portal hypertension, human immunodeficiency virus infection or appetite suppressant exposure). Echocardiography is the initial investigation of choice for non-invasive detection of PAH but measurement of pulmonary pressures and cardiac output during right-heart catheterization are necessary to confirm the diagnosis of PAH. Conventional treatment includes non-specific drugs (warfarin, diuretics, oxygen). Intravenous epoprostenol is the first-line treatment for the most severely affected patients. In less severe cases, the first-line treatment may include bosentan or a prostacyclin analogue. PERSPECTIVES AND CONCLUSIONS: Recent advances in the management of PAH have markedly improved prognosis. The avai-lability of novel specific drugs including type 5 phosphodiesterase inhibitors offers novel therapeutic perspectives but their exact role in the treatment of PAH is still uncertain. The evolution of therapy from vasodilators to antiproliferative agents reflects the advancement in our understanding of the mechanisms mediating pulmonary arterial hypertension.

L2 ANSWER 18 OF 23 MEDLINE on STN ACCESSION NUMBER: 2005078879 MEDLINE DOCUMENT NUMBER: PubMed ID: 15708146

TITLE: Fatal variceal rupture after sildenafil use: report of a

case.

AUTHOR: Finley David S; Lugo Brian; Ridgway James; Teng Wang;

Imagawa David K

CORPORATE SOURCE: Division of Hepatobiliary and Pancreas Surgery, Department

of Surgery, University of California, Irvine, Orange,

California 92868, USA.. finds@uci.edu

SOURCE: Current surgery, (2005 Jan-Feb) Vol. 62, No. 1, pp. 55-6.

Journal code: 7802123. ISSN: 0149-7944.

PUB. COUNTRY: United States DOCUMENT TYPE: (CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200506

ENTRY DATE: Entered STN: 16 Feb 2005

Last Updated on STN: 24 Jun 2005 Entered Medline: 23 Jun 2005

AB Sildenafil may increase the risk of variceal bleeding in portal hyptertension by increasing splanchnic blood flow. We report herein the second case of variceal rupture after sildenafil use.

L2 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1080763 CAPLUS

DOCUMENT NUMBER: 142:16820

TITLE: Use of a phosphodiesterase V

inhibitor for the prophylaxis and/or treatment of

portal hypertension

INVENTOR(S):
Kreisel, Wolfgang

PATENT ASSIGNEE(S): Universitatsklinikum Freiburg, Germany

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA: | TENT | NO. | | | KIN | | DATE APPLICATION NO. | | | | | | | DATE | | | |
|----------|---|---------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--|--------------------------------------|--------------------------|------------------------------|------------------------------|--------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | | | | A2 2004121
A3 2005031 | | | 1216 | | WO 2 | 004- | EP60 | 14 | | 2 | 0040 | 603 |
| | W: | CN,
GE,
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NO, | CO,
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TZ, | DK,
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| | RW: | BW,
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10325813
10325813
1635838 | | | | В4 | | 2005
2007
2006 | 1220 | | DE 2
EP 2 | | | | | | 0030
0040 | |
| | 1635 | 838
AT, | BE, | СН, | B1
DE, | DK, | 2007
ES,
TR, | 0502
FR, | GB, | GR, | IT, | LI, | LU, | | | | |
| ES
EP | 1871
2006
3610
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073 | 77 | | A
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2007 | 1129
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5082:
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7395 | 2512
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| KR | R:
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5813 | | 2
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606 |

The invention discloses a medicament for the prophylaxis and/or treatment AΒ of diseases or complications associated with portal hypertension, especially hemorrhagic complications. The invention uses a phosphodiesterase V inhibitor, e.g. sildenafil.

L2ANSWER 20 OF 23 MEDLINE on STN ACCESSION NUMBER: 2004573302 MEDLINE DOCUMENT NUMBER: PubMed ID: 15545947

TITLE: [Pulmonary hypertension: from genetics to treatments].

Hypertension arterielle pulmonaire: de la genetique aux

traitements.

AUTHOR: Humbert M; Yaici A; Sztrymf B; Montani D

CORPORATE SOURCE: Service de Pneumologie et Reanimation Respiratoire, Centre

des Maladies Vasculaires Pulmonaires, UPRES EA 2705, Reseau

INSERM-AFM sur l'hypertension arterielle pulmonaire,

Hopital Antoine-Beclere, Clamart.. humbert@ipsc.u-psud.fr

Revue de pneumologie clinique, (2004 Sep) Vol. 60, No. 4, SOURCE:

pp. 196-201. Ref: 30

Journal code: 8406312. ISSN: 0761-8417.

PUB. COUNTRY: France

DOCUMENT TYPE: (ENGLISH ABSTRACT)

Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: French

Priority Journals FILE SEGMENT:

ENTRY MONTH: 200505

ENTRY DATE: Entered STN: 17 Nov 2004

> Last Updated on STN: 18 May 2005 Entered Medline: 17 May 2005

AΒ Pulmonary hypertertension (PHT) is a rare disease defined by increased resistance of the pulmonary arteries inevitably leading to right heart failure if specific treatment is not given. This disease can occur sporadically (idiopathic or primary PHT), within a familial context (familial PHT, BMPR2 gene mutation), or occur as a complication of other diseases (connective tissue disease, congenital cardiomyopathy, human immunodeficiency virus infection, portal hypertension, use of anorexigenic agents). The incidence of primary PHT is 2 million cases per year, probably an underestimation due to the low specificity of clinical signs, predominantly exercise-induced dyspnea. Recent therapeutic advances (prostacyclin and endothelin receptor antagonists administered in continuous infusion) have improved the prognosis of this orphan disease. Inhaled iloprost and type 5 phosphodiesterase inhibitors should be evaluated for this indication. Lung transplantation is reserved for patients unresponsive to medical treatment.

ANSWER 21 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2004:313030 CAPLUS

DOCUMENT NUMBER: 140:332199

TITLE: Systemic and splanchnic haemodynamic effects of sildenafil in an in vivo animal model of cirrhosis

support for a risk in cirrhotic patients

AUTHOR(S): Colle, Isabelle; De Vriese, An S.; Van Vlierberghe,

Hans; Lameire, Norbert H.; DeVos, Martine

CORPORATE SOURCE: Division of Hepato-Gatroenterology, Ghent University

Hospital, Ghent, Belg.

SOURCE: Liver International (2004), 24(1), 63-68

CODEN: LIINCM; ISSN: 1478-3223

Blackwell Publishing Ltd. PUBLISHER:

DOCUMENT TYPE: Journal English LANGUAGE:

Objectives: Sildenafil is a selective inhibitor of the cGMP-specific AR phosphodiesterase type V (PDE-V) in the corpus cavernosum. PDE-V is also present in the mesenteric artery. Cirrhosis is complicated by a splanchnic vasodilation attributed to a local overprodn. of nitric oxide (NO). As sildenafil potentiates the effects of NO, it may further decrease mesenteric vascular tone and increase portal venous blood flow. The aim is to evaluate the effects of sildenafil on the systemic and splanchnic hemodynamics in an exptl. model of cirrhosis. Methods: Secondary biliary cirrhosis was induced in male Wistar rats by common bile duct ligation (CBDL, n = 8); control rats were sham-operated (sham, n = 7). The mean arterial pressure (MAP), portal venous pressure (PVP) and arterial mesenteric blood flow (MBF) were measured after intramesenteric (0.01 - 10 mg/kg) and after i.v. (0.01 - 10 mg/kg)administration of sildenafil. Results: Baseline PVP was significantly higher in CBDL than in sham rats, whereas baseline MAP tended to be lower and MBF tended to be higher in CBDL compared with sham rats. Both intramesenteric and i.v. injection of sildenafil significantly decreased MAP and increased MBF and PVP in a dose-dependent way. The decrease in MAP was significantly less important in CBDL than in sham rats. The increase in MBF was importantly lower in CBDL than in sham rats. PVP tended to increase more significantly in sham rats than in CBDL. Conclusion: Sildenafil increases MBF and PVP and induces systemic hypotension. The effects are less pronounced in cirrhosis, suggesting vascular hyporesponsiveness to sildenafil. Although the rise in PVP in cirrhotic animals is smaller than in controls, it may present a risk for hemorrhagic complications. Further studies are necessary before prescribing sildenafil to patients with cirrhosis.

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 22 OF 23 MEDLINE on STN ACCESSION NUMBER: 2004156325 MEDLINE DOCUMENT NUMBER: PubMed ID: 15049592

TITLE: [Pulmonary arterial hypertension]. Hypertension arterielle pulmonaire.

AUTHOR: Montani David; Hamid Abdul; Yaici Azzedine; Sztrymf

Benjamin; Humbert Marc

CORPORATE SOURCE: Centre des maladies vasculaires pulmonaires, UPRES EA2705,

service de pneumologie et reanimation respiratoire, hopital

Antoine Beclere, 92140 Clamart.

SOURCE: La Revue du praticien, (2004 Jan 15) Vol. 54, No. 1, pp.

5-13. Ref: 23

Journal code: 0404334. ISSN: 0035-2640.

PUB. COUNTRY: France

DOCUMENT TYPE: (ENGLISH ABSTRACT)

Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: French

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200409

ENTRY DATE: Entered STN: 31 Mar 2004

Last Updated on STN: 22 Sep 2004 Entered Medline: 21 Sep 2004

AB Pulmonary arterial hypertension (PAH) is a rare condition characterised by elevated pulmonary arterial resistance leading to right heart failure. PAH can be sporadic (idiopathic PAH, or primary pulmonary hypertension), familial (caused by germline BMPR2 mutations, a type II member of the TGFbeta receptor superfamily), or related to other conditions including connective tissue disease, congenital heart disease, human immunodeficiency virus infection, portal hypertension, appetite suppressant exposure... Idiopathic PAH has

a prevalence of 2 per million per year in France. The lack of specificity of PAH symptoms (mostly dyspnea) presumably lead to underdiagnosis of this condition. Echocardiography is the investigation of choice for non-invasive screening. Measurement of hemodynamic parameters during right-heart catheterism is mandatory to establish the diagnosis (mean pulmonary artery pressure >25 mmHg and pulmonary artery wedge pressure <12 mmHg). Acute pulmonary vasodilator testing should be performed with nitric oxide or prostacyclin during right-heart catheterization. Recent advances in the management of PAH including continuous intravenous prostacyclin infusion and endothelin receptor antagonists have improved markedly the patients' prognosis. Novel treatments such as inhaled iloprost and type 5 phosphodiesterase inhibitors have to be further evaluated in this setting. Lung transplantation is the last option for patients deteriorating despite medical treatment.

L2 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 1995:396408 CAPLUS

DOCUMENT NUMBER: 122:157633

ORIGINAL REFERENCE NO.: 122:29029a,29032a

TITLE: Change in vascular cAMP and cGMP contents in portal

hypertensive rats

AUTHOR(S): Huang, Yi-Tsau; Lo, Jeng-Wu; Lin, Han-Chieh; Tsai,

Yang-Te; Hong, Chaung-Ye; Yang, May C. M.

CORPORATE SOURCE: Institute Traditional Medicine, National Yang Ming

Medical College, Taipei, Taiwan Pharmacology (1995), 50(2), 86-91

CODEN: PHMGBN; ISSN: 0031-7012

PUBLISHER: Karger
DOCUMENT TYPE: Journal
LANGUAGE: English

The purpose of this study was to investigate the possible changes of cyclic nucleotide contents in portal hypertensive rats. Portal hypertension was induced by partial portal vein ligation (PVL) in Sprague-Dawley rats. Sham-operated rats served as controls. Hemodynamic and cyclic nucleotide measurements were performed at 14 days after surgery. The portal venous pressure was significantly higher, while systemic arterial pressure and heart rate were lower in PVL rats than those in controls. Basal cAMP (PVL, 10.91 ± 0.98 , vs. sham, 8.08 ± 0.81 pmol/mg protein) and cGMP (PVL, 0.91 ± 0.12 , vs. sham, 0.59 ± 0.05 pmol/mg protein) contents in the tail artery were significantly higher in PVL rats. Isobutyryl methylxanthine (10-5 M), a nonspecific phosphodiesterase inhibitor, exerted similarly stimulating effects on the tissue cAMP (PVL, 158 \pm 10, vs. sham, 178 \pm 20%) and cGMP (295 \pm 28 vs. 316 \pm 71%) levels in both PVL and control rats; so did forskolin (10-6 M) on the cAMP (184 \pm 20 vs. 197 \pm 66%) content in both groups. Our results showed that the arterial cAMP and cGMP contents were higher in PVL rats, which may contribute to the reduction of peripheral resistance in portal hypertension.

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L1 ANSWER 1 OF 9 MEDLINE on STN ACCESSION NUMBER: 2008165128 MEDLINE DOCUMENT NUMBER: PubMed ID: 18280605

TITLE: Significant improvement of portopulmonary

hypertension after 1-week terlipressin treatment.

AUTHOR: Kalambokis Georgios; Korantzopoulos Panagiotis; Nikas

Spyros A; Theodorou Areti; Tsianos Epameinondas V

CORPORATE SOURCE: 1st Division of Internal Medicine, University of Ioannina,

Medical School, 45110 Ioannina, Greece.

SOURCE: Journal of hepatology, (2008 Apr) Vol. 48, No. 4, pp.

678-80. Electronic Publication: 2008-01-28.

Journal code: 8503886. ISSN: 0168-8278.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: (CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200808

ENTRY DATE: Entered STN: 8 Mar 2008

Last Updated on STN: 8 Aug 2008 Entered Medline: 7 Aug 2008

AB Cirrhosis associated with moderate and severe portopulmonary hypertension carries a poor prognosis. Optimal management has not yet been defined. Current treatment options, such as prostacyclin analogues, endothelin antagonists, and phosphodiesterase-5 inhibitors, are characterized by slow onset of action and various adverse effects, particularly in patients with advanced cirrhosis. Here, we report the significant reduction of pulmonary arterial pressure after 1-week terlipressin treatment in a patient with concomitant hepato-renal syndrome. Terlipressin could be a novel and safe treatment for portopulmonary hypertension.

L1 ANSWER 2 OF 9 MEDLINE on STN

ACCESSION NUMBER: 2007523904 IN-PROCESS

DOCUMENT NUMBER: PubMed ID: 17623085

TITLE: Phosphodiesterase 5 inhibitors lower both portal and pulmonary pressure in

portopulmonary hypertension: a case report.

AUTHOR: Bremer Hinrich C; Kreisel Wolfgang; Roecker Kai; Dreher

Michael; Koenig Daniel; Kurz-Schmieg Anna Katharina; Blum

Hubert E; Roessle Martin; Deibert Peter

CORPORATE SOURCE: Department of Gastroenterology, Hepatology, Endocrinology

and Infectious Diseases, University Hospital, Freiburg,

Germany.. wolfgang.kreisel@uniklinik-freiburg.de

SOURCE: Journal of medical case reports, (2007) Vol. 1, pp. 46.

Electronic Publication: 2007-07-10.

Journal code: 101293382. E-ISSN: 1752-1947.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: NONMEDLINE; IN-DATA-REVIEW; IN-PROCESS; NONINDEXED

ENTRY DATE: Entered STN: 8 Sep 2007

Last Updated on STN: 8 Dec 2007

AB ABSTRACT: BACKGROUND: Portopulmonary hypertension (PPHTN) is a severe complication in liver cirrhosis. PDE5 inhibitors lower pulmonary arterial pressure (PAP) in PPHTN. However, their effect on portal hypertension has not yet been investigated. CASE PRESENTATION: A 55 year

old male patient presented with PPHTN and alcoholic liver cirrhosis. 10 mg of Tadalafil, a PDE5 inhibitor with a long half-life, was administered orally under continuous monitoring of pulmonary and portal hemodynamics. For maintenance therapy the patient received Sildenafil 20 mg bid. Tadalafil lowered mean PAP from 45 to 39 mmHg within 60 minutes. Cardiac output (CO) increased from 6.8 to 7.9 1/min. Central venous pressure (CVP) remained stable at 3 mmHg. Systolic and diastolic blood pressure was lowered from 167/89 to 159/86 mmHq. Pulse rate increased from 75 to 87 per min. Wedged hepatic vein pressure (WHVP) decreased from 21 to 18 mm Hq, hepatovenous pressure gradient (HVPG) decreased from 10 to 7 mmHq. Hemodynamic monitoring after 6 months of Sildenafil therapy revealed a sustained lowering of mean PAP. HVPG remained constant at 10 mmHg. Cardiac and pulmonary performance had further improved. CONCLUSION: This case report shows for the first time, that phosphodiesterase 5 inhibitors lower both portal and pulmonary pressure in portopulmonary hypertension.

L1 ANSWER 3 OF 9 MEDLINE on STN ACCESSION NUMBER: 2007497047 MEDLINE DOCUMENT NUMBER: PubMed ID: 17715635

TITLE: Hepatopulmonary syndrome and portopulmonary

hypertension: what's new?.

AUTHOR: Colle Isabelle; Van Steenkiste Christophe; Geerts Anja; Van

Vlierberghe Hans

CORPORATE SOURCE: Department of Hepatology and Gastroenterology, Ghent

University Hospital, Ghent, Belgium...

Isabelle.Colle@ugent.be

SOURCE: Acta gastro-enterologica Belgica, (2007 Apr-Jun) Vol. 70,

No. 2, pp. 203-9. Ref: 67

Journal code: 0414075. ISSN: 0001-5644.

PUB. COUNTRY: Belgium

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200710

ENTRY DATE: Entered STN: 25 Aug 2007

Last Updated on STN: 12 Oct 2007 Entered Medline: 11 Oct 2007

AΒ Hepatopulmonary syndrome (HPS) is found in 4-47% of patients with cirrhosis and is characterized by intrapulmonary vascular dilatations especially in the basal parts of the lung. Liver injury and/or portal hypertension trigger the release of endothelin-1, TNF-alpha, cytokines and mediate vascular shear stress and release of nitric oxide and carbon monoxide, all contributing to intrapulmonary vasodilation. Severe HPS increases mortality (30%) after liver transplantation, especially if Pa 02 is below 50 mmHg. The diagnosis is made by calculating the alveolar-arterial oxygen gradient and by performing a contrast echocardiography. Medical therapy fails and the only long-term treatment available is liver transplantation. More than 85% experience significant improvement or complete resolution in hypoxaemia, but this may take more than 1 year. Portopulmonary hypertension (PPHT) occurs in 2-8% of the patients with cirrhosis. Imbalance between vasodilating (decreased pulmonary expression of eNOS and prostacyclin I2) and vasoconstrictive agents (increased expression of ET-1 and angiotensin 1) may be responsible for misguided angiogenesis and pulmonary hypertension. The diagnosis is made by performing an echocardiography and a right heart catheterisation when systolic pulmonary artery pressure is higher than 30 mmHg on echocardiography. Although prostacyclin analogues are efficacious, adverse effects in terms of safety, tolerability and drug delivery occur. Bosentan is probably the therapy of choice for patients with PPHT because it decreases pulmonary but can also diminish portal hypertension.

Sildenafil, a phosphodiesterase-5 inhibitor is used for idiopathic pulmonary hypertension, however, it should be used cautiously in patients with portal hypertension as it may increase portal hypertension by splanchnic vasodilation.

L1 ANSWER 4 OF 9 MEDLINE on STN

ACCESSION NUMBER: 2007275338 IN-PROCESS

DOCUMENT NUMBER: PubMed ID: 17484815

TITLE: Hepatopulmonary syndrome and portopulmonary

hypertension.

AUTHOR: Hendrickse Adrian; Azam Fareed; Mandell M Susan

CORPORATE SOURCE: Department of Anesthesiology, University of Colorado Health

Sciences Center, 4200 East Ninth Avenue, Denver, CO 80262,

USA.. susan.mandell@uchsc.edu

SOURCE: Current treatment options in cardiovascular medicine, (2007

Apr) Vol. 9, No. 2, pp. 127-36.

Journal code: 9815942. ISSN: 1092-8464.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: NONMEDLINE; IN-DATA-REVIEW; IN-PROCESS; NONINDEXED

ENTRY DATE: Entered STN: 9 May 2007

Last Updated on STN: 8 Dec 2007

The incidence of pulmonary vascular disorders is significantly increased in patients with liver disease. Intrapulmonary shunting with hypoxemia in patients with liver disease is diagnosed as hepatopulmonary syndrome (HPS), whereas precapillary pulmonary vessel obliteration is identified as portopulmonary hypertension (PPHTN). Because the symptoms of liver disease can mimic those of pulmonary vascular disease, all patients with hepatic failure should be screened for these two diseases. Pulse oximetry effectively screens for hypoxemia associated with HPS, whereas an elevated right ventricular systolic pressure estimated by echocardiography identifies patients at risk of having PPHTN. Liver transplantation is the only effective medical therapy for HPS. However, those who have a resting arterial oxygenation less than 50 mm Hg or a shunt measured by scintigraphic perfusion greater than 20% have an unacceptably high mortality rate following surgery. Compared with HPS, there are more therapeutic options that can bridge patients with PPHTN to transplantation. Drugs used to manage idiopathic pulmonary hypertension have shown promise in the treatment of PPHTN. Prostanoids, endothelin receptor antagonists, and phosphodiesterase-5 inhibitors have improved transplant survival. Despite treatment, however, perioperative mortality for patients with PPHTN remains high. Even with successful transplantation, HPS and PPHTN can persist or develop de novo. Long-term follow-up and surveillance of liver transplant recipients is thus indicated to identify HPS and PPHTN following surgery.

L1 ANSWER 5 OF 9 MEDLINE ON STN ACCESSION NUMBER: 2007001493 MEDLINE DOCUMENT NUMBER: PubMed ID: 17197488

TITLE: PDE-5 inhibitors lower portal and pulmonary pressure in portopulmonary

hypertension.

AUTHOR: Deibert P; Bremer H; Roessle M; Kurz-Schmieg A-K; Kreisel W SOURCE: The European respiratory journal : official journal of the European Society for Clinical Respiratory Physiology, (2007)

Jan) Vol. 29, No. 1, pp. 220-1.

Journal code: 8803460. ISSN: 0903-1936.

PUB. COUNTRY: Switzerland
DOCUMENT TYPE: (CASE REPORTS)
Commentary
Letter

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200703

ENTRY DATE: Entered STN: 4 Jan 2007

Last Updated on STN: 24 Mar 2007 Entered Medline: 20 Mar 2007

L1 ANSWER 6 OF 9 MEDLINE on STN ACCESSION NUMBER: 2006614048 MEDLINE DOCUMENT NUMBER: PubMed ID: 17048047

TITLE: Portopulmonary hypertension.

AUTHOR: Halank Michael; Ewert Ralf; Seyfarth Hans-Juergen; Hoeffken

Gert

CORPORATE SOURCE: Carl Gustav Carus University Dresden, Internal Medicine I,

Fetscherstr. 74, 01307 Dresden, Germany.

SOURCE: Journal of gastroenterology, (2006 Sep) Vol. 41, No. 9, pp.

837-47. Ref: 86

Journal code: 9430794. ISSN: 0944-1174.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200701

ENTRY DATE: Entered STN: 19 Oct 2006

Last Updated on STN: 10 Jan 2007 Entered Medline: 9 Jan 2007

AΒ Portopulmonary hypertension (PPHT) is defined as precapillary pulmonary hypertension accompanied by hepatic disease or portal hypertension. Pulmonary hypertension results from excessive pulmonary vascular remodeling and vasoconstriction. These histological alterations have been indistinguishable from those of other forms of pulmonary arterial hypertension. Factors involved in the pathogenesis of PPHT include volume overload, hyperdynamic circulation, and circulating vasoactive mediators. The disorder has a substantial impact on survival and requires focused treatment. Liver transplantation in patients with moderate to severe PPHT is associated with a significantly reduced survival rate. The best medical treatment for patients with PPHT is controversial; most authors currently regard continuous intravenous application of prostacyclin as the treatment of choice for patients with severe PPHT. There is only very limited reported experience with inhaled prostacyclin or its analog, iloprost. Increasing evidence of the efficacy of the endothelin-receptor antagonist bosentan and of the phosphodiesterase-5 inhibitor sildenafil is emerging in highly selected patients with PPHT. In the future, a combination therapy of the above-mentioned agents might become a therapeutic option. Other agents such as beta-blockers seem to be harmful to patients with moderate to severe portopulmonary hypertension. Up-to-date, randomized, double-blind, controlled clinical trials are lacking and are needed

L1 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:304321 CAPLUS

DOCUMENT NUMBER: 149:347097

urgently.

AUTHOR(S):

TITLE: Significant improvement of portopulmonary

hypertension after 1-week terlipressin treatment Kalambokis, Georgios; Korantzopoulos, Panagiotis;

Nikas, Spyros A.; Theodorou, Areti; Tsianos,

Epameinondas V.

CORPORATE SOURCE: 1st Division of Internal Medicine, Medical School,

University of Ioannina, Ioannina, 45110, Greece

SOURCE: Journal of Hepatology (2008), 48(4), 678-680

CODEN: JOHEEC; ISSN: 0168-8278

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Cirrhosis associated with moderate and severe portopulmonary hypertension carries a poor prognosis. Optimal management has not yet been defined. Current treatment options, such as prostacyclin analogs, endothelin antagonists, and phosphodiesterase-5 inhibitors, are characterized by slow onset of action and various adverse effects, particularly in patients with advanced cirrhosis. Here, we report the significant reduction of pulmonary arterial pressure after 1-wk terlipressin treatment in a patient with concomitant hepato-renal syndrome. Terlipressin could be a novel and safe treatment for portopulmonary hypertension.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1066766 CAPLUS

DOCUMENT NUMBER: 145:389445

TITLE: Use of 2-phenyl-substituted imidazotriazinone

derivative phosphodiesterase 5

inhibitors for the treatment of diseases treatable by

increase of GMP levels

INVENTOR(S): Haning, Helmut; Serno, Peter; Bischoff, Erwin;

Ulbrich, Ernst

PATENT ASSIGNEE(S): Bayer Healthcare A.-G., Germany

SOURCE: Ger. Offen., 27pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| DE 102005016345 A1 | | | | | | | | | | | | |
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| GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, | | | | | | | | | | | | |
| KG, KZ, MD, RU, TJ, TM | | | | | | | | | | | | |
| EP 1871378 A1 20080102 EP 2006-723751 20060327 | | | | | | | | | | | | |
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| JP 2008534634 T 20080828 JP 2008-504656 20060327 | | | | | | | | | | | | |
| PRIORITY APPLN. INFO.: DE 2005-102005016345A 20050409 | | | | | | | | | | | | |
| WO 2006-EP2774 W 20060327 | | | | | | | | | | | | |

OTHER SOURCE(S): MARPAT 145:389445

AB The invention discloses the use of phosphodiesterase 5 inhibitors generally, and in particular known 2-phenyl-substituted imidazotriazinone derivs., for the production of medicaments for the treatment of diseases treatable by increase of GMP levels in certain tissues, e.g.

pulmonary hypertension conditions, COPD, emphysema, chronic bronchial asthma, heart failure, etc. The invention also discloses combinations of these compds. with other therapeutic agents.

L1 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1303561 CAPLUS

DOCUMENT NUMBER: 144:285886

TITLE: Bosentan for the treatment of pulmonary arterial

hypertension. (II) Antoniu, Sabina A.

CORPORATE SOURCE: Clinic of Pulmonary Disease, University of Medicine

and Pharmacy, Iasi, 700070, Rom. Therapy (2005), 2(6), 849-852 CODEN: THERCR; ISSN: 1475-0708

PUBLISHER: Future Drugs Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Portopulmonary hypertension is defined as pulmonary arterial hypertension occurring in the presence of portal hypertension. It is classified as a subset of pulmonary arterial hypertension and accordingly it is defined hemodynamically. Portopulmonary hypertension shares the main pathol. features as well as diagnostic approach with other forms of pulmonary arterial hypertension. Several nonpharmacol. and pharmacol. approaches are currently available. Among the pharmacol. approaches prostacycline and its derivs., phosphodiesterase-5 inhibitors such as sildenafil and endothelin receptor antagonists such as bosentan, have been used in portopulmonary hypertension treatment. This is a case series report on the long-term efficacy of bosentan treatment for severe (New York Heart Association functional Class III and IV) portopulmonary hypertension.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L3 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:590998 CAPLUS

DOCUMENT NUMBER: 139:128037

TITLE: Use of acetylcholine esterase antagonists to treat

insulin resistance

INVENTOR(S): Lautt, Wayne W.

PATENT ASSIGNEE(S): Diamedica Inc., Can.

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PATENT NO. | | | | | KIND DATE | | | APPLICATION NO. | | | | | | | | | | |
|------|-----------------------|---------------|-----|-----|-----|-------------|-----|-------------|-----------------------------------|-----------------|-----|-----|------|-----|------------|-----|------|-----|--|
| | WO | WO 2003061648 | | | | A1 20030731 | | | WO 2003-CA78 | | | | | | | | | | |
| | | W: | ΑE, | AG, | AL, | AM, | ΑT, | AU, | ΑZ, | BA, | BB, | ВG, | BR, | BY, | BZ, | CA, | CH, | CN, | |
| | | | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | ES, | FI, | GB, | GD, | GE, | GH, | |
| | | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KΕ, | KG, | KP, | KR, | KΖ, | LC, | LK, | LR, | |
| | | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NO, | NΖ, | OM, | PH, | |
| | | | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | ΤJ, | TM, | TN, | TR, | TT, | TZ, | |
| | | | UA, | UG, | US, | UΖ, | VC, | VN, | YU, | ZA, | ZM, | ZW | | | | | | | |
| | | RW: | GH, | GM, | KΕ, | LS, | MW, | ${ m MZ}$, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | ΑM, | ΑZ, | BY, | |
| | | | KG, | KΖ, | MD, | RU, | ΤJ, | TM, | ΑT, | BE, | ВG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | |
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| | | | | | | | | | CA 2003-2514088
EP 2003-700275 | | | | | | | | | | |
| | EP | | | | | | | | | | | | | - | | | | | |
| | | R: | | | | • | | ES, | • | • | | | • | • | | | • | PT, | |
| | | | | | | | • | RO, | | | | | | | • | | | | |
| | | | | | | | | | | JP 2003-561592 | | | | | | | | | |
| | | | | | | | | | AU 2003-201578 | | | | | | | | | | |
| | US 20050049293 A1 2 | | | | | | | 2005 | 0303 | | | | | | | | | | |
| PRIO | RIORITY APPLN. INFO.: | | | | | | | | | US 2002-350958P | | | | | | | | | |
| | | | | | | | | | | | | | CA78 | | | | 0030 | | |

AB A method is provided for reducing insulin resistance in a mammalian subject, comprising administering a suitable acetylcholine esterase antagonist.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ACCESSION NUMBER: 2004050282 EMBASE

TITLE: Niemann-Pick disease: Sixteen-year follow-up of allogeneic

bone marrow transplantation in a type B variant.

AUTHOR: Victor, S.; Coulter, J.B.S. (correspondence); Ellis, I.

CORPORATE SOURCE: Royal Liverpool Children's NHS Trust, Eaton Road, Liverpool

L12 2AP, United Kingdom. j.coulter@rlch-tr.nwest.nhs.uk

AUTHOR: Besley, G.T.N.

CORPORATE SOURCE: Willink Biochemical Genetics Unit, Royal Manchester

Children's Hospital, Manchester, United Kingdom.

AUTHOR: Desnick, R.J.; Schuchman, E.H.

CORPORATE SOURCE: Department of Human Genetics, Mount Sinai Sch. of Med. of

NY Univ., New York, NY, United States.

AUTHOR: Vellodi, A.

CORPORATE SOURCE: Great Ormond Street Hospital, Children NHS Trust, London,

United Kingdom.

SOURCE: Journal of Inherited Metabolic Disease, (2003) Vol. 26, No.

8, pp. 775-785.

Refs: 28

ISSN: 0141-8955 CODEN: JIMDDP

COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 025 Hematology

O26 Immunology, Serology and Transplantation O29 Clinical and Experimental Biochemistry

048 Gastroenterology

007 Pediatrics and Pediatric Surgery

008 Neurology and Neurosurgery

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 12 Feb 2004

Last Updated on STN: 12 Feb 2004

Allogenic bone marrow transplantation (BMT) was carried out on a AB 3-year-old white caucasian girl with Niemann-Pick disease (NPD) type B. The donor was her unaffected brother. The patient was neurologically normal at the time of transplantation. Engraftment was based on cytogenetic studies and increased leukocyte acid sphingomyelinase (ASM) activity. However, liver biopsies taken up to 33 months post transplantation showed only a moderate reduction in stored sphingomyelin and no significant increase in ASM activity. The post-transplantation period was complicated by severe graft-versus-host disease and a respiratory arrest. By 6 years of age, neurological involvement was observed, including bilateral cherry red spots. The proband is now severely mentally and physically disabled. Liver cirrhosis has continued to progress despite the BMT, and haematemesis due to portal hypertension occurred at 17 years of age. However, pulmonary infiltration regressed after BMT and there has been no clinical evidence of pulmonary insufficiency.

L3 ANSWER 3 OF 18 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

DUPLICATE 1

ACCESSION NUMBER: 2003:179159 BIOSIS DOCUMENT NUMBER: PREV200300179159

TITLE: Portopulmonary hypertension: A tale of two

circulations.

AUTHOR(S): Budhiraja, Rohit; Hassoun, Paul M. [Reprint Author]
CORPORATE SOURCE: Division of Pulmonary and Critical Care, Johns Hopkins

University School of Medicine, 5501 Hopkins Bayview Circle,

Baltimore, MD, 21224, USA

SOURCE: Chest, (February 2003) Vol. 123, No. 2, pp.

562-576. print.

ISSN: 0012-3692 (ISSN print).

DOCUMENT TYPE: Article

General Review; (Literature Review)

LANGUAGE: English

ENTRY DATE: Entered STN: 9 Apr 2003

Last Updated on STN: 9 Apr 2003

AB Pulmonary involvement is common in patients with portal hypertension and can manifest in diverse manners. Changes in pulmonary arterial resistance, manifesting either as the hepatopulmonary syndrome or portopulmonary hypertension (PPHTN), have been increasingly recognized in these patients in recent years. This review summarizes the clinicopathologic features, diagnostic criteria, as well as the latest concepts in the pathogenesis and management of PPHTN, which is defined as an elevated pulmonary artery pressure in the setting

of an increased pulmonary vascular resistance and a normal wedge pressure in a patient with portal hypertension

ANSWER 4 OF 18 MEDLINE on STN DUPLICATE 2 T.3

ACCESSION NUMBER: 2003179790 MEDLINE DOCUMENT NUMBER: PubMed ID: 12644956 TITLE: Pulmonary hypertension.

AUTHOR: Nicod Laurent P

CORPORATE SOURCE: Pulmonary division, University Hospital, Geneva,

Switzerland.. laurent.nicod@hcuge.ch

Swiss medical weekly: official journal of the Swiss SOURCE: Society of Infectious Diseases, the Swiss Society of

Internal Medicine, the Swiss Society of Pneumology, (2003 Feb 22) Vol. 133, No. 7-8, pp. 103-10. Ref:

52

Journal code: 100970884. ISSN: 1424-7860.

PUB. COUNTRY: Switzerland

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200306

ENTRY DATE: Entered STN: 18 Apr 2003

> Last Updated on STN: 28 Jun 2003 Entered Medline: 27 Jun 2003

Pulmonary arterial hypertension (PAH) must be classified into AB primary pulmonary hypertension and PAH related to other diseases such as collagen vascular diseases, HIV infection or portal hypertension. PAH must also be differentiated from other entities, in particular pulmonary hypertension secondary to thromboembolic diseases, requiring specific approaches. All PAH results in similar histological remodelling of pulmonary arteries, with thickening of the intima, proliferation of the media and plexogenic lesions. Today the physiopathology of these lesions is much better understood and has resulted in new therapies involving substances such as prostacyclins, endothelin receptor antagonists or phosphodiesterase inhibitors, aimed not only at dilating arteries but also at preventing their remodelling. Thromboendarterectomy, septostomy and transplantation remain the only option where medical treatment has failed.

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ACCESSION NUMBER: 2003037205 EMBASE

Nitric oxide in liver transplantation: Pathobiology and TITLE:

clinical implications.

Shah, Vijay, Dr. (correspondence); Kamath, Patrick S. AUTHOR: GI Research Unit, Advanced Liver Disease Study Group, CORPORATE SOURCE:

Department of Medicine, 200 First St. SW, Rochester, MN

55905, United States. shah.vijay@mayo.edu

AUTHOR: Shah, Vijay, Dr. (correspondence)

GI Research Unit, Mayo Clinic, Advanced Liver Disease Study CORPORATE SOURCE:

Group, 200 First St. SW, Rochester, MN 55905, United States

. shah.vijay@mayo.edu

SOURCE: Liver Transplantation, (1 Jan 2003) Vol. 9, No. 1, pp.

> 1-11. Refs: 114

ISSN: 1527-6465 CODEN: LITRFO

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 026 Immunology, Serology and Transplantation 030 Clinical and Experimental Pharmacology

037 Drug Literature Index

048 Gastroenterology

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 30 Jan 2003

Last Updated on STN: 30 Jan 2003

AB The gaseous molecule nitric oxide is involved in a variety of liver transplant-relevant processes, including ischemia-reperfusion injury, acute cellular rejection, and circulatory changes characteristic of advanced liver disease. This review article focuses on new advances relating to the role of nitric oxide in these syndromes with an emphasis on pathobiology and potential clinical implications.

L3 ANSWER 6 OF 18 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:583292 BIOSIS DOCUMENT NUMBER: PREV200300573100

TITLE: SILDENAFIL IN RATS WITH CIRRHOSIS AND PORTAL

HYPERTENSION: SYSTEMIC AND SPLANCHNIC HAEMODYNAMIC

EFFECTS.

AUTHOR(S): Colle, Isabelle [Reprint Author]; De Vriese, An; Van

Vlierberghe, Hans; Lameire, Norbert; De Vos, Martine

CORPORATE SOURCE: Gent, Belgium

SOURCE: Digestive Disease Week Abstracts and Itinerary Planner, (

2003) Vol. 2003, pp. Abstract No. S1553. e-file.

Meeting Info.: Digestive Disease 2003. FL, Orlando, USA. May 17-22, 2003. American Association for the Study of Liver Diseases; American Gastroenterological Association; American Society for Gastrointestinal Endoscopy; Society

for Surgery of the Alimentary Tract.

DOCUMENT TYPE: Conference; (Meeting)

Conference; (Meeting Poster)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 10 Dec 2003

Last Updated on STN: 10 Dec 2003

OBJECTIVES: Sildenafil is a selective inhibitor of the cGMP-specific AB phosphodiesterase type V (PDE-V) in the corpus cavernosum. PDE-V is also present in the mesenteric artery. Cirrhosis is complicated by a splanchnic vasodilation attributed to a local overproduction of nitric oxide (NO). As sildenafil potentiates the effects of NO, it may further decrease mesenteric vascular tone and increase portal venous blood flow. The aim is to evaluate the effects of sildenafil on the systemic and splanchnic haemodynamics in an experimental model of cirrhosis. METHODS: Secondary biliary cirrhosis was induced in male Wistar rats by common bile duct ligation (CBDL, n = 8); control rats were sham-operated (sham, n = 7). Mean arterial pressure (MAP), portal venous pressure (PVP) and arterial mesenteric blood flow (MBF) were measured after intramesenteric (i.m.) (0.01 to 10 mg/kg) and after intravenous (i.v.) (0.01 to 10 mg/kg) administration of sildenafil. RESULTS: Baseline PVP was significantly higher in CBDL than in sham rats, whereas baseline MAP tended to be lower and MBF tended to be higher in CBDL compared with sham rats. Both i.m. and i.v. injection of sildenafil significantly decreased MAP and increased MBF and PVP in a dose-dependent way. The decrease in MAP was significantly lower in CBDL than in sham rats. The increase in MBF was significantly lower in CBDL than in sham rats. PVP tended to increase more importantly in sham rats than in CBDL. CONCLUSION: Sildenafil increases MBF and PVP and induces systemic hypotension. The effects are less pronounced in cirrhosis, suggesting vascular hyporesponsiveness to sildenafil. Although the rise in PVP in cirrhotic animals is smaller than in controls, it may present a risk for hemorrhagic complications. Further studies are necessary before prescribing

sildenafil to patients with cirrhosis..

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ACCESSION NUMBER: 2002440718 EMBASE

TITLE: Pulmonary hypertension in the young.

AUTHOR: Haworth, Sheila G., Prof. (correspondence)

CORPORATE SOURCE: Institute of Child Health, 30 Guilford Street, London WC1N

1EH, United Kingdom. S.Haworth@ich.ucl.ac.uk

SOURCE: Heart, (Dec 2002) Vol. 88, No. 6, pp. 658-664.

Refs: 21

ISSN: 1355-6037 CODEN: HEARFR

COUNTRY: United Kingdom DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis

018 Cardiovascular Diseases and Cardiovascular Surgery

037 Drug Literature Index 038 Adverse Reactions Titles

007 Pediatrics and Pediatric Surgery

LANGUAGE: English

ENTRY DATE: Entered STN: 19 Dec 2002

Last Updated on STN: 19 Dec 2002

L3 ANSWER 8 OF 18 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:626747 BIOSIS DOCUMENT NUMBER: PREV200200626747

TITLE: Systemic and splanchnic hemodynamic effects of sildenafil

in rats with cirrhosis and portal

hypertension.

AUTHOR(S): Colle, Isabelle [Reprint author]; De Vriese, An [Reprint

author]; Van Vlierberghe, Hans [Reprint author]; Lameire,
Norbert [Reprint author]; De Vos, Martine [Reprint author]

CORPORATE SOURCE: University Hospital Ghent, Ghent, Belgium

SOURCE: Hepatology, (October, 2002) Vol. 36, No. 4 Part

2, pp. 510A. print.

Meeting Info.: 53rd Annual Meeting on the Liver. BOSTON,

MA, USA. November 01-05, 2002. CODEN: HPTLD9. ISSN: 0270-9139.

DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 12 Dec 2002

Last Updated on STN: 12 Dec 2002

L3 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:257685 CAPLUS

DOCUMENT NUMBER: 128:289810

ORIGINAL REFERENCE NO.: 128:57231a,57234a

TITLE: Hemodynamics and oxygen metabolism in a canine model

where sepsis was induced by fecal peritonitis

AUTHOR(S): Tanaka, Yoshikazu

CORPORATE SOURCE: Second Department of Anesthesiology, Dokkyo University

School of Medicine, Tochigi, 321-0293, Japan Dokkyo Igakkai Zasshi (1998), 13(1), 185-199

CODEN: DIZAEG; ISSN: 0911-5900

PUBLISHER: Dokkyo Igakkai

DOCUMENT TYPE: Journal LANGUAGE: Japanese

SOURCE:

AB The objective of this study was to clarify hemodynamics and oxygen metabolism in an canine model where sepsis was induced by fecal peritonitis, and to examine the pharmacol. actions of beta-adrenergic stimulant, dobutamine, and phosphodiesterase III inhibitor, amrinone, as a therapeutic

agent. Twenty mongrel dogs were anesthetized with pentobarbital and ventilated mech. Fecal peritonitis was induced by instilling 1.0 g/kg BW of the fecal mixture for 5 h. Plasma endotoxin was detected 3 h after instillation. Peritonitis caused decreases in mean arterial pressure, cardiac output, superior mesenteric arterial and portal venous blood flow, systemic oxygen delivery, and arterial and mixed venous oxygen saturation Systemic oxygen consumption was elevated significantly. Microscopical evaluation revealed epithelial lifting at the tip of the villus. Treatment with dobutamine infusion $(5\mu g/kg/min)$ at 3 h after fecal peritonitis improved the intestinal blood flow and oxygen extraction ratio, and prevented the development of intestinal blood flow and oxygen extraction ratio, and prevented the development of intestinal mucosal damage. On the other hands, amrinone $(10\mu g/kg/min)$ decreased mean arterial pressure, increased oxygen consumption and oxygen extraction ratio, and did not prevent mucosal damage. It was concluded that endotoxemia was developed 3 h after fecal peritonitis. Potential application of dobutamine, but not amrinone, may exist in treatment of septic patient.

L3 ANSWER 10 OF 18 MEDLINE on STN ACCESSION NUMBER: 1998088826 MEDLINE DOCUMENT NUMBER: PubMed ID: 9428550

TITLE: Pentoxifylline increases gut ketogenesis following trauma

and hemorrhagic shock.

AUTHOR: Wang W; Wang P; Chaudry I H

CORPORATE SOURCE: Center for Surgical Research, Department of Surgery, Brown

University School of Medicine and Rhode Island Hospital,

Providence 02903, USA.

CONTRACT NUMBER: KO2 AI 01461 (United States NIAID NIH HHS)

R01 GM 39519 (United States NIGMS NIH HHS)

SOURCE: Critical care medicine, (1998 Jan) Vol. 26, No.

1, pp. 101-7.

Journal code: 0355501. ISSN: 0090-3493.

PUB. COUNTRY: United States

DOCUMENT TYPE: (COMPARATIVE STUDY)

Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals

ENTRY MONTH: 199801

ENTRY DATE: Entered STN: 6 Feb 1998

Last Updated on STN: 29 Jan 1999 Entered Medline: 28 Jan 1998

AB OBJECTIVES: Although pentoxifylline produces various beneficial effects following adverse circulatory conditions, it is not known whether this agent has any effects on gut lipid metabolism after trauma-hemorrhage and resuscitation. The aim of this study, therefore, was to determine whether or not administration of pentoxifylline after trauma-hemorrhagic shock has any salutary effects on gut ketogenesis. DESIGN: A prospective, controlled animal study. SETTING: A university research laboratory. SUBJECTS: Fifty-six male Spraque-Dawley rats. INTERVENTIONS: Rats underwent a midline laparotomy (i.e., trauma-induced) and were bled to and maintained at a mean arterial pressure of 40 mm Hg until 40% of the shed blood volume was returned in the form of lactated Ringer's solution. The animals were then resuscitated with four times the volume of maximal bleedout with lactated Ringer's solution over 60 mins. Pentoxifylline (50 mg/kg body weight) or an equivalent volume of normal saline was infused intravenously over 100 mins during and after resuscitation. For in vivo lipid loading, one milliliter of olive oil was given intraduodenally on the completion of resuscitation. Blood samples from portal vein and carotid artery, as well as enterocytes from proximal small intestine, were obtained at 1.5 hrs after fat feeding.

MEASUREMENTS AND MAIN RESULTS: Mitochondrial fatty acid beta-oxidation enzyme (i.e., palmitoyl-coenzyme A dehydrogenase) activity, as well as portal and arterial plasma beta-hydroxybutyrate values, were determined. Palmitoyl-coenzyme A dehydrogenase activity in villus tip cells and plasma beta-hydroxybutyrate values in portal vein and carotid artery were significantly reduced after trauma-hemorrhage and resuscitation. Pentoxifylline administration, however, significantly increased mitochondrial fatty acid beta-oxidation enzyme activity and portal plasma beta-hydroxybutyrate concentration without significantly affecting arterial concentrations under such conditions. CONCLUSION: Pentoxifylline promotes gut ketogenesis following trauma-hemorrhage and resuscitation.

L3 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 1998:476921 CAPLUS

DOCUMENT NUMBER: 129:254660

ORIGINAL REFERENCE NO.: 129:51695a,51698a

TITLE: Acute effects of toborinone on vascular capacitance

and conductance in experimental heart failure

AUTHOR(S): Semeniuk, Lisa M.; Belenkie, Israel; Tyberg, John V. CORPORATE SOURCE: Departments of Medicine and Physiology and Biophysics,

The University of Calgary, Calgary, AB, T2N 4N1, Can.

SOURCE: Circulation (1998), 98(1), 58-63

CODEN: CIRCAZ; ISSN: 0009-7322

PUBLISHER: Williams & Wilkins

DOCUMENT TYPE: Journal LANGUAGE: English

Toborinone (OPC-18790), a phosphodiesterase III inhibitor, enhances cardiac contractility and is an arterial dilator. However, its effects on the venous system have not yet been clearly defined. Because toborinone administration reduces left ventricular (LV) end-diastolic pressure, it is probably also a venodilator. Because of the known arterial effects and the hypothesized venous effects, we compared changes in systemic vascular conductance (the inverse of resistance) with changes in venous capacitance. In 15 anesthetized, splenectomized dogs (10 treatment, 5 control), pressures were measured in the right atrium, aorta, portal vein, and LV. A cuff constrictor was placed around the portal vein. Cardiac output was measured by thermodilution, and splanchnic vascular capacitance was measured by blood-pool scintigraphic methods. Data were collected at baseline, after induction of heart failure (microsphere embolization into the left coronary artery), and then after toborinone boluses of 0.1, 0.2, 0.4, and 0.8 mg/kg. Heart failure was associated with decreased capacitance and conductance (to $87\pm3\%$ and $64\pm4\%$ of baseline values, resp., P<0.05). After administration of the lower doses of toborinone, capacitance increased more than conductance; however, the effects were more balanced at the higher doses. Compared with nitroglycerin, hydralazine, and enalaprilat (results of an earlier study) in the same model, toborinone increased capacitance to a degree similar to that with nitroglycerin, at higher doses increased conductance similarly to hydralazine, and increased both capacitance and conductance considerably more than did enalaprilat. Toborinone is a potent balanced venous and arterial dilator in exptl. acute heart failure. These marked effects suggest that it may prove to be a clin. important alternative to other vasodilators.

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ACCESSION NUMBER: 1997074839 EMBASE

TITLE: Heterogeneity of liver disorder in type B Niemann-Pick

disease.

AUTHOR: Takahashi, Tsutomu, Dr. (correspondence)

CORPORATE SOURCE: Department of Pediatrics, Akita University School of

Medicine, 1-1-1 Hondo, Akita-shi, Akita 010, Japan.

AUTHOR: Akiyama, Kenji; Tomihara, Masako; Tokudome, Takahiro;

Nishinomiya, Fujihiko; Tazawa, Yusaku; Horinouchi, Kenichi;

Sakiyama, Takeshi; Takada, Goro

SOURCE: Human Pathology, (1997) Vol. 28, No. 3, pp. 385-388.

Refs: 12

ISSN: 0046-8177 CODEN: HPCQA4

COUNTRY: United States
DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 005 General Pathology and Pathological Anatomy

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 24 Mar 1997

Last Updated on STN: 24 Mar 1997

AB Patients with type B Niemann-Pick disease (NPD) are known to be complicated with varying degrees of prognosis-determining liver dysfunction. To see heterogeneity of the dysfunction histologically, we performed liver biopsies on three NPD patients from three different families, who were diagnosed by enzyme assay of acid sphingomyelinase (ASM) and analysis of the ASM gene. In a severe case, of a female patient in her childhood, the liver showed definite fibrosis despite her age. In contrast, in a very mild case, of an adult male patient, the liver showed little fibrosis, though the ballooning of hepatocytes and infiltration of foamy histiocytes were observed in the tissue. Three homo-allelic mutations (\$436R, A599T, and \$231P) were identified in the patients. Thus, various hepatic phenotypes in type B NPD were shown to be caused by the heterogeneity of liver lesions originating from different ASM gene mutations.

L3 ANSWER 13 OF 18 MEDLINE on STN ACCESSION NUMBER: 1998201168 MEDLINE DOCUMENT NUMBER: PubMed ID: 9540345

TITLE: Effect of amrinone on portal hemodynamics and

tissue blood flow in the isolated perfused rat liver.

AUTHOR: Kariya N

CORPORATE SOURCE: Department of Anesthesiology and Intensive Care Medicine,

Osaka City University Medical School, Japan.

SOURCE: Osaka city medical journal, (1997 Dec) Vol. 43,

No. 2, pp. 243-51.

Journal code: 0376413. ISSN: 0030-6096.

PUB. COUNTRY: Japan DOCUMENT TYPE: (IN VITRO)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199804

ENTRY DATE: Entered STN: 7 May 1998

Last Updated on STN: 7 May 1998 Entered Medline: 30 Apr 1998

AB We studied the effect of amrinone on portal perfusion pressure, perfusion flow, and tissue blood flow using an isolated perfused rat liver model. In the constant perfusion flow model, amrinone effectively decreased perfusion pressure in the precontracted state by adenosine triphosphate (ATP) or norepinephrine. Amrinone dose-dependently decreased portal perfusion pressure increased by calcium chloride. Similarly, amrinone dose-dependently increased portal perfusion flow decreased by ATP in the constant perfusion pressure model. Amrinone effectively increased tissue blood flow decreased by ATP or norepinephrine measured by laser-Doppler flowmetry. A specific inhibitor of the biosynthesis of nitric oxide, N

omega-nitro-L-arginine, did not affect the hemodynamic effect of amrinone, suggesting that nitric oxide is not involved in the portal vasodilating effect of amrinone. We conclude that amrinone increases portal blood flow by decreasing perfusion pressure and contributes to increasing tissue blood flow of the liver without the involvement of nitric oxide.

L3 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 1995:396408 CAPLUS

DOCUMENT NUMBER: 122:157633

ORIGINAL REFERENCE NO.: 122:29029a,29032a

TITLE: Change in vascular cAMP and cGMP contents in

portal hypertensive rats

AUTHOR(S): Huang, Yi-Tsau; Lo, Jeng-Wu; Lin, Han-Chieh; Tsai,

Yang-Te; Hong, Chaung-Ye; Yang, May C. M.

CORPORATE SOURCE: Institute Traditional Medicine, National Yang Ming

Medical College, Taipei, Taiwan Pharmacology (1995), 50(2), 86-91

CODEN: PHMGBN; ISSN: 0031-7012

PUBLISHER: Karger
DOCUMENT TYPE: Journal
LANGUAGE: English

SOURCE:

AB The purpose of this study was to investigate the possible changes of

cyclic nucleotide contents in portal hypertensive rats. Portal hypertension was induced by partial

portal vein ligation (PVL) in Sprague-Dawley rats. Sham-operated rats served as controls. Hemodynamic and cyclic nucleotide measurements

were performed at 14 days after surgery. The portal venous pressure was significantly higher, while systemic arterial pressure and heart rate were lower in PVL rats than those in controls. Basal cAMP (PVL, 10.91 ± 0.98 , vs. sham, 8.08 ± 0.81 pmol/mg protein) and cGMP (PVL, 0.91 ± 0.12 , vs. sham, 0.59 ± 0.05

pmol/mg protein) contents in the tail artery were significantly higher in

PVL rats. Isobutyryl methylxanthine (10-5 M), a nonspecific phosphodiesterase inhibitor, exerted similarly stimulating effects on the tissue cAMP (PVL, 158 ± 10, vs. sham, 178 ± 20%) and cGMP (295 ± 28 vs. 316 ± 71%) levels in both PVL and control rats; so did forskolin (10-6 M) on the cAMP $(184 \pm 20 \text{ vs. } 197 \pm 66\%)$ content in

both groups. Our results showed that the arterial cAMP and cGMP contents were higher in PVL rats, which may contribute to the reduction of peripheral

resistance in portal hypertension.

L3 ANSWER 15 OF 18 MEDLINE on STN ACCESSION NUMBER: 1987017279 MEDLINE DOCUMENT NUMBER: PubMed ID: 3763677

TITLE: The effects of PAF-acether on the cardiovascular system and

their inhibition by a new highly specific PAF-acether

receptor antagonist BN 52021.

AUTHOR: Baranes J; Hellegouarch A; Le Hegarat M; Viossat I; Auguet

M; Chabrier P E; Braquet P

SOURCE: Pharmacological research communications, (1986 Aug)

Vol. 18, No. 8, pp. 717-37.

Journal code: 0236354. ISSN: 0031-6989.

PUB. COUNTRY: United States DOCUMENT TYPE: (IN VITRO)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198611

ENTRY DATE: Entered STN: 2 Mar 1990

Last Updated on STN: 3 Feb 1997 Entered Medline: 19 Nov 1986

BN 52021, a new specific PAF-acether receptor antagonist, was evaluated on AΒ several cardiovascular models. BN 52021 antagonized PAF-acether-induced extravasation in rats. Inhibition of the hypotensive action of PAF-acether was obtained by administration of the antagonist, given preventively or curatively. In isolated guinea-pig hearts, BN 52021 inhibited the vasoconstriction induced by PAF-acether whereas a small inhibition was observed with papaverine. On the other hand, phosphodiesterase inhibitors were very effective against coronary vasoconstriction induced by vasopressin while BN 52021 was without effect. PAF-acether increased the tonus of rat isolated portal vein; this effect was inhibited by BN 52021, without any reduction in basal myogenic activity. In this model Ca2+ antagonists (D 600, diltiazem) showed a small inhibitory effect but they strongly reduced basal myogenic activity. Neither PAF-acether nor BN 52021 modified phenylephrine-induced contraction of the isolated rabbit aorta with or without endothelium demonstrating that endothelium-dependent relaxing factor is not related to PAF-acether. Our results suggest that BN 52021 specifically block the cardiovascular effects of PAF-acether. This agent may thus be an useful tool for a better understanding of the role of PAF-acether in hemodynamic changes involved in anaphylaxis or shock.

ANSWER 16 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1984:32896 CAPLUS

DOCUMENT NUMBER: 100:32896

ORIGINAL REFERENCE NO.: 100:5091a,5094a

Effects of sodium-decreased media on tonus and of TITLE:

spasmolytics on the responses to contractile agents in

portal veins from SHRSP and WKY [rats]

AUTHOR(S): Murakami, Noriko; Niwa, Atsuko; Higashino, Hideaki;

Suzuki, Aritomo

CORPORATE SOURCE: Sch. Med., Kinki Univ., Osaka, 659, Japan Vasc. Neuroeff. Mech., Int. Symp., 4th (1983) SOURCE:

), Meeting Date 1981, 413-16. Editor(s): Bevan, John A. Raven: New York,

N.Y.

CODEN: 50PUAW

DOCUMENT TYPE: Conference LANGUAGE: English

Isometric contractions of portal vein sections from stroke-prone spontaneously hypertensive rats (SHRSP) (induced by acetylcholine, norepinephrine, KCl, or BaCl2) were inhibited by dibutyryl cAMP, aminophylline (a phosphodiesterase inhibitor), or fenoterol (a β -stimulant) less than the vein sections from normal control Wistar Kyoto rats (WKY). Diltiazem (a Ca antagonist) inhibited the contractions in SHRSP more than in control WKY rats. The replacement of normal incubation medium (Locke's solution) by medium with low Na and(or) Ca concns. caused stronger contractions in SHRSP than in WKY controls. Thus, in SHRSP portal veins, the reactivity to cAMP is decreased; the reactivity of β -receptors is impaired; and Ca transport into cells and/or Ca release from cell stores are accelerated as compared with those of WKY rats.

ANSWER 17 OF 18 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on L3

1982:27102 BIOSIS ACCESSION NUMBER:

DOCUMENT NUMBER: PREV198222027102; BR22:27102

TITLE: EFFECTS OF SOME SPASMOLYTICS ON RESPONSES TO SMOOTH MUSCLE

> CONTRACTILE AGENTS EXPERIMENT IN THE ISOLATED PORTAL VEIN FROM STROKE PRONE SPONTANEOUSLY

HYPERTENSIVE RATS.

MURAKAMI N [Reprint author]; YANAGAWA T; HIGASHINO H; AUTHOR(S):

MIYAZATO A S T; NIWA A

CORPORATE SOURCE: DEP PHARMACOL, KINKI UNIV SCH MED, OSAKA-FU 589

SOURCE: Japanese Heart Journal, (1981) Vol. 22, No. 3,

pp. 491.

Meeting Info.: 16TH ANNUAL SCIENTIFIC MEETING OF THE COUNCIL FOR THE SPONTANEOUSLY HYPERTENSIVE RAT (SHR),

YAMAGATA, JAPAN, OCTOBER 1-2, 1980. JPN HEART J.

CODEN: JHEJAR. ISSN: 0021-4868.

DOCUMENT TYPE: Conference; (Meeting)

FILE SEGMENT: BR

LANGUAGE: ENGLISH

L3 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 1975:84098 CAPLUS

DOCUMENT NUMBER: 82:84098

ORIGINAL REFERENCE NO.: 82:13468h,13469a

TITLE: Cyclic AMP [of] blood vessels of spontaneously

hypertensive rat

AUTHOR(S): Ramanathan, S.; Shibata, Shoji

CORPORATE SOURCE: Sch. Med., Univ. Hawaii, Honolulu, HI, USA

SOURCE: Blood Vessels (1974), 11(5), 312-18

CODEN: BLVSAB; ISSN: 0303-6847

DOCUMENT TYPE: Journal LANGUAGE: English

AB The vascular smooth muscle (aorta, portal vein, and renal arteries) from spontaneously hypertensive rats (SHR) contained a lower level of cyclic AMP. Similar differences were observed in young SHR that had not yet developed hypertension, as compared to their normotensive controls. However, no such difference was observed in the vascular smooth muscle from the cross-bred normotensive animals. The adenyl cyclase and phosphodiesterase activities of the vascular smooth muscles from SHR was lower than the normotensive controls. Changes in cyclic AMP metabolism may occur during the process of hypertension

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- NEWS 14 MAY 15 INPADOCDB and INPAFAMDB enhanced with Chinese legal status data
- NEWS 15 MAY 28 CAS databases on STN enhanced with NANO super role in records back to 1992
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=> s (phosphodiesterase or pde) and inhibitor and portopulmon?
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=> dup rem 11
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L2 34 DUP REM L1 (14 DUPLICATES REMOVED)

=> s 12 and py<=2003

L3 2 L2 AND PY<=2003

=> d 13 ib ibabs 1-2

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L3 ANSWER 1 OF 2 EMBASE COPYRIGHT (c) 2009 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2003098686 EMBASE

TITLE: Portopulmonary hypertension: A tale of two

circulations.

AUTHOR: Budhiraja, Rohit; Hassoun, Paul M., Dr. (correspondence)
CORPORATE SOURCE: Department of Medicine, Tufts-New England Medical Center,

Tufts University School of Medicine, Boston, MA, United

States.

AUTHOR: Hassoun, Paul M., Dr. (correspondence)

CORPORATE SOURCE: Department of Medicine, Johns Hopkins Univ. Sch. of

Medicine, Div. of Pulmonary and Critical Care, 5501 Hopkins

Bayview Circle, Baltimore, MD 21224, United States.

SOURCE: Chest, (1 Feb 2003) Vol. 123, No. 2, pp. 562-576.

Refs: 208

ISSN: 0012-3692 CODEN: CHETBF

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis

037 Drug Literature Index 038 Adverse Reactions Titles

048 Gastroenterology

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 25 Mar 2003

Last Updated on STN: 25 Mar 2003

AB Pulmonary involvement is common in patients with portal hypertension and can manifest in diverse manners. Changes in pulmonary arterial resistance, manifesting either as the hepatopulmonary syndrome or portopulmonary hypertension (PPHTN), have been increasingly recognized in these patients in recent years. This review summarizes the clinicopathologic features, diagnostic criteria, as well as the latest concepts in the pathogenesis and management of PPHTN, which is defined as an elevated pulmonary artery pressure in the setting of an increased pulmonary vascular resistance and a normal wedge pressure in a patient with portal hypertension.

L3 ANSWER 2 OF 2 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:127784 BIOSIS DOCUMENT NUMBER: PREV200300127784

TITLE: Acute and short-term hemodynamic and clinical effect of

sildenafil in pulmonary arterial hypertension.

AUTHOR(S): McGoon, M. D. [Reprint Author]; Frantz, R. P. [Reprint

Author]; Severson, C. J. [Reprint Author]; Durst, L. A.

[Reprint Author]; Tointon, S. K. [Reprint Author]

CORPORATE SOURCE: Cardiovascular Diseases, Mayo Clinic, Rochester, MN, USA

SOURCE: Journal of Heart and Lung Transplantation, (January

2003) Vol. 22, No. 1S, pp. S153. print.

Meeting Info.: Twenty-Third Annual Meeting and Scientific Sessions of the International Society for Heart and Lung Transplantation. Vienna, Austria. April 09-12, 2003. International Society for Heart and Lung Transplantation.

ISSN: 1053-2498.

DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 5 Mar 2003

Last Updated on STN: 5 Mar 2003

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=> s (portopulmonary or portal) and (?afil) L1 284 (PORTOPULMONARY OR PORTAL) AND (?AFIL)

=> s l1 not py>2004 L2 82 L1 NOT PY>2004

=> dup rem 12

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L3 49 DUP REM L2 (33 DUPLICATES REMOVED)

=> s 13 and (pressure or hypertension) L4 27 L3 AND (PRESSURE OR HYPERTENSION)

=> d 14 ibib abs 1-27

L4 ANSWER 1 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2004:313030 CAPLUS

DOCUMENT NUMBER: 140:332199

TITLE: Systemic and splanchnic haemodynamic effects of

sildenafil in an in vivo animal model of

author(S): cirrhosis support for a risk in cirrhotic patients Colle, Isabelle; De Vriese, An S.; Van Vlierberghe,

Hans; Lameire, Norbert H.; DeVos, Martine

CORPORATE SOURCE: Division of Hepato-Gatroenterology, Ghent University

Hospital, Ghent, Belg.

SOURCE: Liver International (2004), 24(1), 63-68

CODEN: LIINCM; ISSN: 1478-3223

PUBLISHER: Blackwell Publishing Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Objectives: Sildenafil is a selective inhibitor of the cGMP-specific phosphodiesterase type V (PDE-V) in the corpus cavernosum. PDE-V is also present in the mesenteric artery. Cirrhosis is complicated by a splanchnic vasodilation attributed to a local overprodn. of nitric oxide (NO). As sildenafil potentiates the effects of NO, it may further decrease mesenteric vascular tone and increase portal venous blood flow. The aim is to evaluate the effects of sildenafil on the systemic and splanchnic hemodynamics in an exptl. model of cirrhosis. Methods: Secondary biliary cirrhosis was induced in male Wistar rats by common bile duct ligation (CBDL, n = 8); control rats were sham-operated (sham, n = 7). The mean arterial pressure (MAP), portal venous pressure (PVP) and arterial mesenteric blood flow (MBF) were measured after intramesenteric (0.01 - 10 mg/kg) and after i.v. (0.01 - 10 mg/kg) administration of sildenafil. Results: Baseline PVP was significantly higher in CBDL than in sham rats, whereas baseline MAP tended to be lower and MBF tended to be higher in CBDL compared with sham rats. Both intramesenteric and i.v. injection of sildenafil significantly decreased MAP and increased MBF and PVP in a dose-dependent The decrease in MAP was significantly less important in CBDL than in sham rats. The increase in MBF was importantly lower in CBDL than in sham rats. PVP tended to increase more significantly in sham rats than in CBDL. Conclusion: Sildenafil increases MBF and PVP and induces systemic hypotension. The effects are less pronounced in cirrhosis, suggesting vascular hyporesponsiveness to sildenafil. Although the rise in PVP in cirrhotic animals is smaller than in controls, it may present a risk for hemorrhagic complications. Further studies are necessary before prescribing sildenafil to patients with cirrhosis.

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L4 ANSWER 2 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2003:954237 CAPLUS

DOCUMENT NUMBER: 140:280557

TITLE: Gastroduodenal motility

AUTHOR(S): Ramkumar, Davendra; Schulze, Konrad S.

CORPORATE SOURCE: University of Iowa HealthCare and VAMC, Iowa City, IA,

USA

SOURCE: Current Opinion in Gastroenterology (2003), 19(6),

540-545

CODEN: COGAEK; ISSN: 0267-1379 Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

PUBLISHER:

AB A review. The neuromuscular function of the stomach and duodenum provides the mech. forces that drive digestion and are responsible for sensations of satiety and of dyspepsia. This article reviews (1) the neuroendocrine factors controlling upper gastrointestinal motility, (2) noninvasive techniques to evaluate gastroduodenal motility, and (3) the pathophysiol. and treatment of gastroparesis. Recent findings nutrients in the duodenum inhibit gastric emptying via a feedback pathway that involves release of cholecystokinin and serotonin (5-HT) from neuroendocrine cells; both act peripherally, cholecystokinin via cholecystokinin A receptors and

serotonin via 5-HT3 receptors. The dorsal vagal complex plays a central role in the gastric inhibition mediated by tumor necrosis factor- α . The construction of maps that define intestinal movements in time and space has now been extended to the stomach. MRI compares favorably with the barostat in assessing gastric volume accommodation to meals and drugs and has the advantage of being noninvasive and showing contractions. Gastroparesis is increasingly recognized as a complication of end-stage liver disease; ascites plays no role in this, but portal hypertension stiffens the gastric walls and creates hypoxic conditions that may interfere with the neuromuscular functions of the stomach. Promising for the treatment of gastroparesis are clonidine, sildenafil, and intrapyloric botulinum toxin. Elec. stimulation triggers a vagally mediated relaxation of the stomach. Drugs may be designed that specifically act on 5-HT3, cholecystokinin, or TNF- $\!\alpha$ receptors. Spatiotemporal maps should boost the diagnostic yield from dynamic imaging of motility using ultrasound, computed axial tomog. scan, or MRI and the understanding of the mech. forces driving digestion. Symptomatic benefit in gastroparesis may derive more from improved accommodation than gastric emptying.

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REFERENCE COUNT: 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 27 MEDLINE on STN ACCESSION NUMBER: 2004335006 MEDLINE DOCUMENT NUMBER: PubMed ID: 15237383

TITLE: Sildenafil for portopulmonary

hypertension in a patient undergoing liver

transplantation.

AUTHOR: Makisalo Heikki; Koivusalo Anu; Vakkuri Anne; Hockerstedt

Krister

CORPORATE SOURCE: Department of Surgery, Division of Transplantation and

Liver Surgery, Helsinki University Hospital, Helsinki,

Finland.. heikki.makisalo@hus.fi

SOURCE: Liver transplantation: official publication of the

American Association for the Study of Liver Diseases and the International Liver Transplantation Society, (2004 Jul)

Vol. 10, No. 7, pp. 945-50.

Journal code: 100909185. ISSN: 1527-6465.

PUB. COUNTRY: United States DOCUMENT TYPE: (CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200503

ENTRY DATE: Entered STN: 7 Jul 2004

Last Updated on STN: 8 Mar 2005 Entered Medline: 7 Mar 2005

AB Liver transplantation (LT) may be indicated in cirrhotic patients with underlying pulmonary artery hypertension. However, severe pulmonary artery hypertension with mean pulmonary artery pressure (mPAP) above 50 mmHg has even been considered a contraindication to LT. We present a cirrhotic patient with an mPAP of 56 mmHg measured using right heart catheterization (RHC) and with severely compromised physical capacity. She was first treated with sildenafil (Viagra), a potent novel vasodilator, and successfully transplanted later. The mPAP decreased with sildenafil to the level of 28-31 mmHg and her general condition improved markedly. An LT using piggyback technique was performed 16 weeks later. Despite 2 reoperations for bleeding, the outcome has been excellent. In conclusion, treatment of severe portopulmonary hypertension (PHT)

with sildenafil is effective. If a decrease in mPAP is achieved with sildenafil, it may improve the result of LT, even though no evidence of reversibility of PPHTN exists.

L4 ANSWER 4 OF 27 MEDLINE on STN ACCESSION NUMBER: 2003524976 MEDLINE DOCUMENT NUMBER: PubMed ID: 14603504

TITLE: Pharmacokinetics of DA-8159, a new erectogenic, after intravenous and oral administration to rats: hepatic and

intestinal first-pass effects.

AUTHOR: Shim Hyun J; Kim Yu C; Park Kyung J; Kim Dong S; Kwon Jong

W; Kim Won B; Lee Myung G

CORPORATE SOURCE: College of Pharmacy and Research Institute of

Pharmaceutical Sciences, Seoul National University, Seoul,

South Korea.

SOURCE: Journal of pharmaceutical sciences, (2003 Nov) Vol. 92, No.

11, pp. 2185-95.

Journal code: 2985195R. ISSN: 0022-3549.

PUB. COUNTRY: United States DOCUMENT TYPE: (IN VITRO)

Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200406

ENTRY DATE: Entered STN: 7 Nov 2003

Last Updated on STN: 24 Jun 2004 Entered Medline: 18 Jun 2004

AΒ The purposes of this study were to report dose-independent (after intravenous administration) and dose-dependent (after oral administration) area under the curve of plasma concentration versus time from time zero to time infinity (AUC), and gastric, intestinal, and/or hepatic first-pass effects (after intravenous, intraportal, intragastric, and intraduodenal administration) of DA-8159 [5-[2-propyloxy-5-(1-methyl-2-propyloxy-5-(1-methpyrollidinylethylamidosulfonyl)phenyl]-1-methyl-3-propyl-1,6-dihydro-7Hpyrazolo(4,3-d)pyrimidine-7-one], a new erectogenic, in rats. After intravenous administration at doses of 5, 10, and 30 mg/kg, the AUCs and time-averaged total body clearances (CLs) were dose-independent. However, the AUCs were dose-dependent after oral administration at doses of 20, 30, 50, and 100 mg/kg. This result could be due to saturation of first-pass effects at high doses. The extent of absolute oral bioavailability (F) of DA-8159 was 38.0% at a dose of 30~mg/kg. Considering almost complete absorption of DA-8159 from rat gastrointestinal tract (approximately 99% of oral dose of 30 mg/kg), the low F could be due to considerable hepatic, gastric, and/or intestinal first-pass effects. After intravenous administration at three doses, the CLs were considerably slower than the reported cardiac output in rats, suggesting almost negligible first-pass effect of DA-8159 in the heart and lung. The AUCs were not significantly different between intragastric and intraduodenal administration of DA-8159 at a dose of 30 mg/kg (131 and 127 microg x min/mL), suggesting that qastric first-pass effect of DA-8159 was almost negligible in rats. However, the values were significantly smaller than that after intraportal administration (311 microg x \min/mL), indicating considerable intestinal first-pass effect of DA-8159 in rats of approximately 58% of the oral dose. Approximately 23% of DA-8159 at a dose of 30 mg/kg absorbed into the portal vein was eliminated by the liver (hepatic first-pass effect) based on AUC difference between intravenous and intraportal administration (the value, 23%, was equivalent to approximately 9.6% of oral dose). The low F of DA-8159 after oral administration at a dose of 30 mg/kg to rats was mainly due to considerable intestinal (approximately 58%) first-pass effects.

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Pharm Sci 92:2185-2195, 2003

L4 ANSWER 5 OF 27 MEDLINE on STN ACCESSION NUMBER: 2001662941 MEDLINE DOCUMENT NUMBER: PubMed ID: 11708765

TITLE: Current management of primary pulmonary

hypertension.

AUTHOR: Klings E S; Farber H W

CORPORATE SOURCE: The Pulmonary Center, Boston University School of Medicine,

Massachusetts 02118, USA.. eklings@lung.bumc.bu.edu Drugs, (2001) Vol. 61, No. 13, pp. 1945-56. Ref: 59

Journal code: 7600076. ISSN: 0012-6667.

PUB. COUNTRY: New Zealand

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

General Review; (REVIEW)

LANGUAGE: English

SOURCE:

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200203

ENTRY DATE: Entered STN: 19 Nov 2001

Last Updated on STN: 8 Mar 2002 Entered Medline: 7 Mar 2002

AΒ Primary pulmonary hypertension (PPH) is a rare disorder with an annual incidence of 1 to 2 per million people. The aetiology of this disorder is unknown, but it appears to result from an abnormal interaction of environmental and genetic factors leading to a vasculopathy. The pulmonary arteries in these patients exhibit a spectrum of pathological lesions ranging from the early medial hypertrophy to the end-stage fibrotic plexiform lesions. This characteristic pathology is also observed in pulmonary hypertension resulting from connective tissue disease (particularly systemic sclerosis), HIV infection, portal hypertension and certain toxins. PPH is a condition that is difficult to diagnose and treat, with a median survival of 2.8 years in historical studies. One of the difficulties in treating patients with PHH is that the subacute nature of disease presentation often prevents an accurate diagnosis during the early stages of the illness. Progressive dyspnoea on exertion is the most common presenting symptom. Diagnostic evaluation should include electrocardiography, chest radiograph and echocardiography, and laboratory and other studies to evaluate for secondary causes (e.g. pulmonary function tests, chest computed tomography and ventilation/perfusion scans, pulmonary arteriogram, cardiopulmonary testing, right heart catherisation). PHH is a disorder for which there is no known cure. Current medical and surgical treatment options for patients with PHH include anticoagulation, vasodilators and transplantation. Calcium channel antagonists are currently the oral drugs of choice for the treatment of patients with New York Heart Association (NYHA) Class II disease. These agents, in particular the dihydropyridine compounds, have beneficial effects on haemodynamics and right ventricular function, and possibly increased survival. Epoprostenol is administered by intravenous infusion, and studies have demonstrated short- and long-term improvements in symptoms, haemodynamics and survival. It is well tolerated and has become the treatment of choice for patients with NYHA Class III and IV disease. Inotropic agents are used as a bridge to transplant, which is indicated in patients who do not respond to maximal medical therapy. Experience has shown that single lung, double lung and heart-lung transplantation are approximately of equal efficacy. Currently, single lung transplant appears to be the procedure of choice. Newer agents, such as sildenafil, beraprost and bosentan, are presently being evaluated for the treatment of this disorder. Future study should include elucidation of the pathogenic mechanisms in the development of this vasculopathy, which will hopefully lead to the development of improved

treatment options for patients with PHH.

L4 ANSWER 6 OF 27 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:583292 BIOSIS DOCUMENT NUMBER: PREV200300573100

TITLE: SILDENAFIL IN RATS WITH CIRRHOSIS AND PORTAL HYPERTENSION: SYSTEMIC AND

SPLANCHNIC HAEMODYNAMIC EFFECTS.
AUTHOR(S): Colle, Isabelle [Reprint Author]; De Vriese, An; Van

Vlierberghe, Hans; Lameire, Norbert; De Vos, Martine

CORPORATE SOURCE: Gent, Belgium

SOURCE: Digestive Disease Week Abstracts and Itinerary Planner,

(2003) Vol. 2003, pp. Abstract No. S1553. e-file.

Meeting Info.: Digestive Disease 2003. FL, Orlando, USA. May 17-22, 2003. American Association for the Study of Liver Diseases; American Gastroenterological Association; American Society for Gastrointestinal Endoscopy; Society

for Surgery of the Alimentary Tract.

DOCUMENT TYPE: Conference; (Meeting)

Conference; (Meeting Poster)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 10 Dec 2003

Last Updated on STN: 10 Dec 2003

OBJECTIVES: Sildenafil is a selective inhibitor of the cGMP-specific phosphodiesterase type V (PDE-V) in the corpus cavernosum. PDE-V is also present in the mesenteric artery. Cirrhosis is complicated by a splanchnic vasodilation attributed to a local overproduction of nitric oxide (NO). As sildenafil potentiates the effects of NO, it may further decrease mesenteric vascular tone and increase portal venous blood flow. The aim is to evaluate the effects of sildenafil on the systemic and splanchnic haemodynamics in an experimental model of cirrhosis. METHODS: Secondary biliary cirrhosis was induced in male Wistar rats by common bile duct ligation (CBDL, n = 8); control rats were sham-operated (sham, n = 7). Mean arterial pressure (MAP), portal venous pressure (PVP) and arterial mesenteric blood flow (MBF) were measured after intramesenteric (i.m.) (0.01 to 10 mg/kg) and after intravenous (i.v.) (0.01 to 10 mg/kg) administration of sildenafil. RESULTS: Baseline PVP was significantly higher in CBDL than in sham rats, whereas baseline MAP tended to be lower and MBF tended to be higher in CBDL compared with sham rats. Both i.m. and i.v. injection of sildenafil significantly decreased MAP and increased MBF and PVP in a dose-dependent way. The decrease in MAP was significantly lower in CBDL than in sham rats. The increase in MBF was significantly lower in CBDL than in sham rats. PVP tended to increase more importantly in sham rats than in CBDL. CONCLUSION: Sildenafil increases MBF and PVP and induces systemic hypotension. The effects are less pronounced in cirrhosis, suggesting vascular hyporesponsiveness to sildenafil. Although the rise in PVP in cirrhotic animals is smaller than in controls, it may present a risk for hemorrhagic complications. Further studies are necessary before prescribing sildenafil to patients with cirrhosis..

L4 ANSWER 7 OF 27 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:127784 BIOSIS DOCUMENT NUMBER: PREV200300127784

TITLE: Acute and short-term hemodynamic and clinical effect of

sildenafil in pulmonary arterial

hypertension.

AUTHOR(S): McGoon, M. D. [Reprint Author]; Frantz, R. P. [Reprint

Author]; Severson, C. J. [Reprint Author]; Durst, L. A.

[Reprint Author]; Tointon, S. K. [Reprint Author]

CORPORATE SOURCE: Cardiovascular Diseases, Mayo Clinic, Rochester, MN, USA

SOURCE:

Journal of Heart and Lung Transplantation, (January 2003)

Vol. 22, No. 1S, pp. S153. print.

Meeting Info.: Twenty-Third Annual Meeting and Scientific Sessions of the International Society for Heart and Lung Transplantation. Vienna, Austria. April 09-12, 2003. International Society for Heart and Lung Transplantation.

ISSN: 1053-2498.

DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 5 Mar 2003

Last Updated on STN: 5 Mar 2003

L4 ANSWER 8 OF 27 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:626747 BIOSIS DOCUMENT NUMBER: PREV200200626747

TITLE: Systemic and splanchnic hemodynamic effects of

sildenafil in rats with cirrhosis and

portal hypertension.

AUTHOR(S): Colle, Isabelle [Reprint author]; De Vriese, An [Reprint

author]; Van Vlierberghe, Hans [Reprint author]; Lameire,
Norbert [Reprint author]; De Vos, Martine [Reprint author]

CORPORATE SOURCE: University Hospital Ghent, Ghent, Belgium

SOURCE:

Hepatology, (October, 2002) Vol. 36, No. 4 Part 2, pp.

510A. print.

Meeting Info.: 53rd Annual Meeting on the Liver. BOSTON,

MA, USA. November 01-05, 2002. CODEN: HPTLD9. ISSN: 0270-9139.

DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 12 Dec 2002

Last Updated on STN: 12 Dec 2002

L4 ANSWER 9 OF 27 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:448530 BIOSIS DOCUMENT NUMBER: PREV200200448530

TITLE: Sildenafil (Viagra) is a risk factor for acute

variceal bleeding.

AUTHOR(S): Tzathas, Charalabos [Reprint author]; Christidou, Ageliki;

Ladas, Spiros D.

CORPORATE SOURCE: 32 Xanthippou Street, 155 61, Athens, Greece

SOURCE: American Journal of Gastroenterology, (July, 2002) Vol. 97,

No. 7, pp. 1856. print.

CODEN: AJGAAR. ISSN: 0002-9270.

DOCUMENT TYPE: Letter LANGUAGE: English

ENTRY DATE: Entered STN: 21 Aug 2002

Last Updated on STN: 21 Aug 2002

L4 ANSWER 10 OF 27 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on

STN

ACCESSION NUMBER: 2002:188665 BIOSIS DOCUMENT NUMBER: PREV200200188665

TITLE: Systemic and portal hemodynamic effects of

sildenafil citrate.

AUTHOR(S): Nelson, Garcia [Reprint author]; Farhad, Maleknia [Reprint

author]; Faridoddin, Mirshahi [Reprint author]; Sanyal,

Arun J. [Reprint author]

CORPORATE SOURCE: Medical Coll of Virginia, VCU, Richmond, VA, USA

SOURCE: Gastroenterology, (April, 2001) Vol. 120, No. 5 Supplement

1, pp. A.378. print.

Meeting Info.: 102nd Annual Meeting of the American

Gastroenterological Association and Digestive Disease Week.

Atlanta, Georgia, USA. May 20-23, 2001. American

Gastroenterological Association; American Association for

the Study of Liver Diseases; American Society for Gastrointestinal Endoscopy; Society for Surgery of the

Alimentary Tract.

CODEN: GASTAB. ISSN: 0016-5085.

DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 13 Mar 2002

Last Updated on STN: 13 Mar 2002

L4 ANSWER 11 OF 27 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights

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ACCESSION NUMBER: 2004526367 EMBASE

TITLE: Pulmonary arterial hypertension: Newer treatment

are improving outcomes.

AUTHOR: Sirithanakul, Kasem; Mubarak, Kamal K., Dr.

(correspondence)

CORPORATE SOURCE: Wayne State University, 3990 John R, 3937 Hudson, Detroit,

MI 48201, United States. mubarak@wayne.edu

SOURCE: Journal of Family Practice, (Dec 2004) Vol. 53, No. 12, pp.

959-969. Refs: 59

ISSN: 0094-3509 CODEN: JFAPDE

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis

O30 Clinical and Experimental Pharmacology O36 Health Policy, Economics and Management

037 Drug Literature Index038 Adverse Reactions Titles

LANGUAGE: English

ENTRY DATE: Entered STN: 30 Dec 2004

Last Updated on STN: 30 Dec 2004

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ACCESSION NUMBER: 2004483715 EMBASE

TITLE: Bosentan therapy for pulmonary arterial

hypertension.

AUTHOR: Cohen, Henry, Dr. (correspondence)

CORPORATE SOURCE: Arnold Marie Schwartz Coll. P., Long Island University

(LIU), Brooklyn, NY, United States. henry.cohen@LIU.edu

AUTHOR: Cohen, Henry, Dr. (correspondence)

CORPORATE SOURCE: Research, and Residency Programs, Departments of Pharmacy

and Medicine, Kingsbrook Jewish Medical Center, Brooklyn,

NY, United States. henry.cohen@LIU.edu

AUTHOR: Chahine, Corinne

CORPORATE SOURCE: Saint Michael's Medical Center, Newark, NJ, United States.

AUTHOR: Chahine, Corinne; Hui, Alan

CORPORATE SOURCE: KJMC.

AUTHOR: Chahine, Corinne; Hui, Alan

CORPORATE SOURCE: Arnold Marie Schwartz Coll. P., LIU.

AUTHOR: Hui, Alan

CORPORATE SOURCE: Downstate Medical Center, State University of New York,

Brooklyn, NY, United States.

AUTHOR: Mukherji, Rajat

Department of Medicine, KJMC. CORPORATE SOURCE:

AUTHOR: Cohen, Henry, Dr. (correspondence)

CORPORATE SOURCE: Kingsbrook Jewish Medical Center, 585 Schenectady Avenue,

Brooklyn, NY 11203, United States. henry.cohen@LIU.edu

American Journal of Health-System Pharmacy, (1 Jun 2004) SOURCE:

Vol. 61, No. 11, pp. 1107-1119.

Refs: 77

ISSN: 1079-2082 CODEN: AHSPEK

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery

> 036 Health Policy, Economics and Management

037 Drug Literature Index 038 Adverse Reactions Titles

006 Internal Medicine

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 2 Dec 2004

Last Updated on STN: 2 Dec 2004

Purpose. The etiology, epidemiology, pathophysiology, diagnosis, and AB manifestations of pulmonary arterial hypertension (PAH) are described, and the role of bosentan in the management of PAH is reviewed. Summary. The incidence of primary pulmonary hypertension, a subcategory of PAH, is estimated to be one to two new cases per million people annually in the general population. PAH has definitively been linked with several appetite suppressants. Disease-induced causes of PAH include connective tissue diseases, portal hypertension or liver disease, and human immunodeficiency virus infection. clinical diagnosis of early PAH is difficult because its symptoms are nonspecific. Exertional dyspnea, the most common symptom of PAH, occurs in 60% of patients and indicates a severely compromised cardiac output. Three dependent elements are integral to the development of elevated mean pulmonary arterial pressure and PAH: vascular wall remodeling, thrombosis in situ, and vasoconstriction. Bosentan undergoes extensive hepatic metabolism. Bosentan-induced hepatotoxicity is common and must be monitored carefully throughout therapy. Since PAH is common in women of childbearing age, the use of bosentan in these patients requires careful review. Limited data exist on the use of bosentan in children, but one small study found that treatment with the drug resulted in hemodynamic improvement for pediatric patients with PAH. Conclusion. Prostacyclin analogues are the most effective agents for managing PAH, but their use is hampered by the need for parenteral therapy. Oral bosentan is a novel

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ACCESSION NUMBER: 2004466565 EMBASE TITLE: Pulmonary hypertension.

AUTHOR:

McLaughlin, Vallerie V.; Rich, Stuart University of Michigan, 1500 E. Medical Center Drive, L3119 CORPORATE SOURCE:

treatment alternative for patients with PAH. Further trials are necessary to determine bosentan's onset of action, consistency, durability, and magnitude of effect in different populations with PAH and its impact on

Women's Hosp., Ann Arbor, M.. vmclaugh@umich.edu

SOURCE: Current Problems in Cardiology, (Oct 2004) Vol. 29, No. 10,

> pp. 575-634. Refs: 143

ISSN: 0146-2806 CODEN: CPCAE7

S 0146-2806(04)00096-9 PUBLISHER IDENT.:

COUNTRY: United States

survival.

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery 030 Clinical and Experimental Pharmacology

037 Drug Literature Index 038 Adverse Reactions Titles

039 Pharmacy

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 19 Nov 2004

Last Updated on STN: 19 Nov 2004

AB Pulmonary hypertension, in its simplest sense, is elevation of the pulmonary artery pressure above normal. A multitude of diseases may increase the pulmonary artery pressure and result in right ventricular dysfunction. The treatments of pulmonary hypertension are as varied as its causes. The past decade has realized remarkable growth in knowledge of the mechanisms of pulmonary arterial hypertension and, concurrently, therapies for this once uniformly fatal disease. In addition to continuous intravenous epoprostenol, subcutaneous treprostinil and oral bosentan are now FDA approved for the treatment of pulmonary arterial hypertension. Other forms of pulmonary hypertension, such as pulmonary venous hypertension, pulmonary hypertension related to diseases of the respiratory system, and thromboembolic pulmonary hypertension will be discussed.

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ACCESSION NUMBER: 2004349672 EMBASE

TITLE: Gateways to Clinical Trials: July/August 2004.

AUTHOR: Bayes, M. (correspondence)

CORPORATE SOURCE: Prous Science, S.A., P.O. Box 540, 08080 Barcelona, Spain.

mbayes@prous.com

AUTHOR: Rabasseda, X.; Prous, J.R.

SOURCE: Methods and Findings in Experimental and Clinical

Pharmacology, (Jul 2004) Vol. 26, No. 6, pp. 473-503.

Refs: 194

ISSN: 0379-0355 CODEN: MFEPDX

COUNTRY: Spain

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 030 Clinical and Experimental Pharmacology

037 Drug Literature Index

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 16 Sep 2004

Last Updated on STN: 16 Sep 2004

AB Gateways to Clinical Trials is a quide to the most recent clinical trials in current literature and congresses. The data in the following tables has been retrieved from the Clinical Trials Knowledge Area of Prous Science Integrity®, the drug discovery and development portal , http://integrity.prous.com. This issue focuses on the following selection of drugs: ABI-007, Ad.Egr.TNF.11D, adefovir dipivoxil, AdPEDF.11, AES-14, albumex, alefacept, alemtuzumab, aliskiren fumarate, alvimopan hydrate, aAminolevulinic acid hydrochloride, aminolevulinic acid methyl ester, anakinra, anti-IL-12 MAb, aprepitant, atazanavir sulfate, atrasentan, avanafil; Banoxantrone, BG-12, bimatoprost, bortezomib, bosentan; Calcipotriol/betamethasone dipropionate, caspofungin acetate, CBT-1, ciclesonide, clofarabine, conivaptan hydrochloride, CpG-7909, C-Vax, Cypher; DA-8159, DAC:GLP-1, darbepoetin alfa, darifenacin, duloxetine hydrochloride; Eculizumab, efalizumab, efaproxiral sodium, EGF vaccine, eletriptan, epratuzumab, erlotinib hydrochloride, escitalopram oxalate, ETC-642, etoricoxib, everolimus, exenatide; Gefitinib, IV gamma-globulin; Human insulin, gamma-hydroxybutyrate sodium; IDN-6556, iguratimod, imatinib mesylate, indiplon, ixabepilone; Laquinimod, LB-80380, lidocaine/prilocaineliraglutide, lopinavir,

lopinavir/ritonavir, lucinactant; MAb-14.18, melatonin, MLN-591-DM1; NC-531, neridronic acid, nesiritide, neutrophil-inhibitory factor, niacin/lovastatin niacinllovastatin; Oblimersen sodium, olcegepant, oral Insulin, ORV-105; Palonosetron hydrochloride, PAmAb, pegaptanib sodium, peginterferon alfa-2a, pegvisomant, perifosine, pexelizumab, phenoxodiol, phenserine tartrate, pimecrolimus, pramlintide acetate, pregabalin, PRO-542, prostate cancer vaccine, PT-141; Ramelteon, rasagiline mesilate, rDNA insulin, reslizumab, rh-Lactoferrin, ribamidine hydrochloride, rosuvastatin calcium; S-81841, SC-1, sorafenib, St. John's Wort extract, SU-11248; Taxus, telbivudine, tenofovir disoproxil fumarate, teriparatide, testosterone gel, tezosentan disodium, tipifarnib, tolvaptan, trabectedin, travoprost, travoprost/timolol, treprostinil sodium; Vardenafil hydrochloride hydrate; Xcellerated T cells, XR-5944; Yttrium 90 (90Y) ibritumomab tiuxetan; Ziconotide. .COPYRGT. 2004 Prous Science. All rights reserved.

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ACCESSION NUMBER: 2004218771 EMBASE

TITLE: Gateways to clinical trials: April 2004.

AUTHOR: Bayes, M. (correspondence)

CORPORATE SOURCE: Prous Science, P.O. Box 540, 08080 Barcelona, Spain.

mbayes@prous.com

AUTHOR: Rabasseda, X.; Prous, J.R.

SOURCE: Methods and Findings in Experimental and Clinical

Pharmacology, (Apr 2004) Vol. 26, No. 3, pp. 211-244.

Refs: 192

ISSN: 0379-0355 CODEN: MFEPDX

COUNTRY: Spain

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 030 Clinical and Experimental Pharmacology

037 Drug Literature Index 038 Adverse Reactions Titles

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 10 Jun 2004

Last Updated on STN: 10 Jun 2004

AΒ Gateways to Clinical Trials is a quide to the most recent clinical trials in current literature and congresses. The data in the following tables has been retrieved from the Clinical Studies Knowledge Area of Prous Science Integrity®, the drug discovery and development portal , http://integrity.prous.com. This issue focuses on the following selection of drugs: ABI-007, adalimumab, adefovir dipivoxil, alefacept, alemtuzumab, 3-AP, AP-12009, APC-8015, L-Arginine hydrochloride, aripiprazole, arundic acid, avasimibe; Bevacizumab, bivatuzumab, BMS-181176, BMS-184476, BMS-188797, bortezomib, bosentan, botulinum toxin type B, BQ-123, BRL-55730, bryostatin 1; CEP-1347, cetuximab, cinacalcet hydrochloride, CP-461, CpG-7909; D-003, dabuzalgron hydrochloride, darbepoetin alfa, desloratadine, desoxyepothilone B, dexmethylphenidate hydrochloride, DHA-paclitaxel, diflomotecan, DN-101, DP-b99, drotrecogin alfa (activated), duloxetine hydrochloride, duramycin; Eculizumab, Efalizumab, EKB-569, elcometrine, enfuvirtide, eplerenone, erlotinib hydrochloride, ertapenem sodium, eszopiclone, everolimus, exatecan mesilate, ezetimibe; Fenretinide, fosamprenavir calcium, frovatriptan; GD2L-KLH conjugate vaccine, gefitinib, glufosfamide, GTI-2040; Hexyl insulin M2, human insulin, hydroquinone, gamma-Hydroxybutyrate sodium; IL-4(38-37)-PE38KDEL, imatinib mesylate, indisulam, inhaled insulin, ixabepilone; KRN-5500; LY-544344; MDX-210, melatonin, mepolizumab, motexafin gadolinium; Natalizumab, NSC-330507, NSC-683864; 1-Octanol, omalizumab, ortataxel; Pagoclone, peginterferon alfa-2a, peginterferon alfa-2b, pemetrexed disodium, phenoxodiol, pimecrolimus, plevitrexed, polyphenon E, pramlintide acetate, prasterone, pregabalin, PX-12; QS-21;

Ragaglitazar, ranelic acid distrontium salt, RDP-58, recombinant glucagon-like peptide-1 (7-36) amide, repinotan hydrochloride, rhEndostatin, rh-Lactoferrin, (R)-roscovitine; S-8184, semaxanib, sitafloxacin hydrate, sitaxsentan sodium, sorafenib, synthadotin; Tadalafil, tesmilifene hydrochloride, theratope, tipifarnib, tirapazamine, topixantrone hydrochloride, trabectedin, traxoprodil, Tri-Luma; Valdecoxib, valganciclovir hydrochloride, vinflunine; Ximelagatran; Ziconotide. .COPYRGT. 2004 Prous Science. All rights reserved.

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2004209709 EMBASE

TITLE:

[Treatment of porto pulmonary hypertension]. Prise en charge therapeutique de l'hypertension

porto-pulmonaire.

AUTHOR:

Sitbon, Olivier (correspondence)

CORPORATE SOURCE:

ACCESSION NUMBER:

Serv. de Pneumologie et Reanimation, Universite Paris Sud, Hopital Antoine Beclere, 157, rue de la Porte de Trivaux,

92141 Clamart, France.

SOURCE:

Gastroenterologie Clinique et Biologique, (Apr 2004) Vol.

28, No. SPEC. ISS. 2, pp. B312-B316.

Refs: 40

ISSN: 0399-8320 CODEN: GCBIDC

COUNTRY:

France

DOCUMENT TYPE: Journal; Conference Article; (Conference paper)

FILE SEGMENT:

Chest Diseases, Thoracic Surgery and Tuberculosis 015 018 Cardiovascular Diseases and Cardiovascular Surgery

037 Drug Literature Index 048

Gastroenterology

LANGUAGE:

French

ENTRY DATE:

Entered STN: 10 Jun 2004

Last Updated on STN: 10 Jun 2004

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ACCESSION NUMBER: 2004209691 EMBASE

TITLE:

[Treatment of porto-pulmonary hypertension].

Prise en charge de l'hypertension

porto-pulmonaire.

AUTHOR:

Sanchez, Olivier (correspondence)

CORPORATE SOURCE:

Serv. de Pneumol. et Soins Intensifs, Hopital Europeen Georges Pompidou, 20, rue Leblanc, 75908 Paris, Cedex 15,

France.

SOURCE:

Gastroenterologie Clinique et Biologique, (Apr 2004) Vol.

28, No. SPEC. ISS. 2, pp. B169-B178.

Refs: 81

ISSN: 0399-8320 CODEN: GCBIDC

COUNTRY:

France

DOCUMENT TYPE:

Journal; Conference Article; (Conference paper)

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis Cardiovascular Diseases and Cardiovascular Surgery 018

037 Drug Literature Index

048 Gastroenterology

LANGUAGE:

French

ENTRY DATE: Entered STN: 10 Jun 2004

Last Updated on STN: 10 Jun 2004

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ACCESSION NUMBER: 2004201147 EMBASE

TITLE: Portopulmonary hypertension and hepatopulmonary syndrome.

AUTHOR: Hoeper, Marius M., Dr. (correspondence)

CORPORATE SOURCE: Department of Respiratory Medicine, Hannover Medical

School, 30623 Hannover, Germany. hoeper.marius@mh-hannover.

de

AUTHOR: Strassburg, Christian P.

CORPORATE SOURCE: Dept. Gastroenterol., Hepatol. E., Hannover Medical School,

30623 Hannover, Germany.

AUTHOR: Krowka, Michael J.

CORPORATE SOURCE: Div. Pulmon. and Critical Care Med., Mayo Clinic,

Rochester, MN, United States.

SOURCE: Lancet, (1 May 2004) Vol. 363, No. 9419, pp. 1461-1468.

Refs: 104

ISSN: 0140-6736 CODEN: LANCAO

PUBLISHER IDENT.: S 0140-6736(04)16107-2

COUNTRY:

United Kingdom

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis

030 Clinical and Experimental Pharmacology

037 Drug Literature Index 038 Adverse Reactions Titles

006 Internal Medicine

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 4 Jun 2004

Last Updated on STN: 4 Jun 2004

The clinically and pathophysiologically distinct entities of AB portopulmonary hypertension and hepatopulmonary syndrome occur in a substantial proportion of patients who have advanced liver disease of different causes. These disorders are notoriously underdiagnosed, but they have a substantial impact on survival and require focused treatment. Abnormal intrapulmonary vascular dilatation, the hallmark of hepatopulmonary syndrome, can cause profound hypoxaemia that can be very difficult to treat. By contrast, portopulmonary hypertension results from excessive pulmonary vasoconstriction and vascular remodelling that eventually leads to right-heart failure. Insights into the pathogeneses of these syndromes have led to novel therapeutic approaches. However, in severely affected patients, effective treatment remains a difficult task. In selected patients, liver transplantation represents the only treatment option, but the decision to do isolated liver transplantation is particularly challenging in patients who have severe pulmonary disease involvement. Data from several centres have contributed to provide criteria that allow improved prediction of which patients may, or may not, benefit from liver transplantation alone.

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ACCESSION NUMBER: 2004077283 EMBASE

TITLE: [Primary pulmonary hypertension: Prospects for

treatment].

Hipertension arterial pulmonar: Perspectivas terapeuticas.

AUTHOR: Saenz De La Calzada, Carlos, Dr. (correspondence) CORPORATE SOURCE: Catedrat. Cardiol. Univ. Complutense, Servicio de

Cardiologia, Hospital Universitario 12 de Octubre, Madrid,

Spain.

AUTHOR: Saenz De La Calzada, Carlos, Dr. (correspondence)
CORPORATE SOURCE: Servicio de Cardiologia, Hospital Universitario 12 de

Octubre, Ctra. de Andalucia, Km 5.400, 28041 Madrid, Spain.

SOURCE: Medicina Clinica, (24 Jan 2004) Vol. 122, No. 2, pp. 62-63.

Refs: 21

ISSN: 0025-7753 CODEN: MCLBA2

COUNTRY: Spain

DOCUMENT TYPE: Journal; Editorial

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis

018 Cardiovascular Diseases and Cardiovascular Surgery

037 Drug Literature Index

006 Internal Medicine

LANGUAGE: Spanish; Castilian ENTRY DATE: Entered STN: 4 Mar 2004

Last Updated on STN: 4 Mar 2004

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ACCESSION NUMBER: 2003354233 EMBASE

TITLE: Prostanoids for pulmonary arterial hypertension.

AUTHOR: Galie, Nazzareno, Dr. (correspondence); Manes, Alessandra;

Branzi, Angelo

CORPORATE SOURCE: Institute of Cardiology, University of Bologna, via

Massarenti 9, 40138 Bologna, Italy. n.galie@bo.nettuno.it

AUTHOR: Galie, Nazzareno, Dr. (correspondence)

CORPORATE SOURCE: Istituto di Cardiologia, Universita di Bologna, via

Massarenti 9, 40138 Bologna, Italy. n.galie@bo.nettuno.it

SOURCE: American Journal of Respiratory Medicine, (2003) Vol. 2,

No. 2, pp. 123-137.

Refs: 118

ISSN: 1175-6365 CODEN: AJRMAG

COUNTRY: New Zealand

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis

018 Cardiovascular Diseases and Cardiovascular Surgery

030 Clinical and Experimental Pharmacology

037 Drug Literature Index

038 Adverse Reactions Titles

006 Internal Medicine

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 18 Sep 2003

Last Updated on STN: 18 Sep 2003

AΒ Pulmonary arterial hypertension (PAH) is a severe condition that markedly reduces exercise capacity and survival in the affected patient population. PAH includes primary pulmonary hypertension (PPH) and pulmonary hypertension associated with collagen vascular diseases, congenital systemic-to-pulmonary shunts, portal hypertension and HIV infection. All these conditions share virtually identical obstructive pathologic changes of the pulmonary microcirculation and probably similar pathobiologic processes. The pathophysiology is characterized by a progressive increase in pulmonary vascular resistance, leading to right ventricular failure and death. Prostacyclin is an endogenous substance that is produced by vascular endothelial cells and induces vasodilatation, inhibition of platelet activity, and antiproliferative effects. A dysregulation of prostacyclin metabolic pathways has been shown in patients with PAH and this represents the rationale for the exogenous therapeutic administration of this substance. The clinical use of prostacyclin in patients with PAH has been made possible by the synthesis of stable analogs that possess different pharmacokinetic properties but share similar pharmacodynamic effects. Experience in humans has been initially collected with epoprostenol, which is a synthetic salt of prostacyclin. Epoprostenol has a short half-life in the circulation and requires continuous administration by the intravenous route by means of infusion pumps and permanent tunnelized catheters. In addition, epoprostenol is unstable at room temperature, and the complex delivery system required is associated with several adverse effects and potentially serious complications. For these reasons, alternatives to intravenous epoprostenol have been sought and this has led

to the development of analogs that can be administered subcutaneously (treprostinil), orally (beraprost sodium) or by inhalation (iloprost). Three unblinded clinical trials and several uncontrolled trials have shown that treatment with epoprostenol improved symptoms and exercise capacity in New York Heart Association (NYHA) class III and IV PAH patients and also survival in patients with PPH. Subcutaneous treprostinil improved symptoms, exercise, hemodynamics and clinical events in the largest clinical trial ever performed in PAH, but local infusion site reactions limited efficacy in a proportion of patients. Oral beraprost sodium improved exercise capacity only in patients with PPH and is the only prostacyclin analog that has also been tested in NYHA class II patients. Inhaled iloprost has improved symptoms, exercise capacity and clinical events in patients with PAH and inoperable chronic thromboembolic pulmonary hypertension. The favorable effects of prostanoids observed in all studies coupled with different profiles of adverse events and tolerability for each prostacyclin analog allow the unique opportunity to select the most appropriate compound for the individual patient with PAH.

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ACCESSION NUMBER: 2003256920 EMBASE

TITLE: Gateways to clinical trials: May 2003.

AUTHOR: Bayes, M. (correspondence)

CORPORATE SOURCE: Prous Science, S.A., P.O. Box 540, 08080 Barcelona, Spain.

mbaves@prous.com

AUTHOR: Rabasseda, X.; Prous, J.R.

SOURCE: Methods and Findings in Experimental and Clinical

Pharmacology, (May 2003) Vol. 25, No. 4, pp. 317-340.

Refs: 143

ISSN: 0379-0355 CODEN: MFEPDX

COUNTRY: Spain

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 030 Clinical and Experimental Pharmacology

037 Drug Literature Index

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 17 Jul 2003

Last Updated on STN: 17 Jul 2003

AΒ Gateways to Clinical Trials is a guide to the most recent clinical trials in current literature and congresses. The data in the following tables has been retrieved from the Clinical Studies knowledge area of Prous Science Integrity®, the drug discovery and development portal , http://integrity.prous.com. This issue focuses on the following selection of drugs: 2F5, 2G12, Abetimus sodium, ABI-007, adalimumab, adefovir dipivoxil, AE-941, alefacept, altropane, aminolevulinic acid hydrochloride, aminolevulinic acid methyl ester, aminopterin, anakinra, aprinocarsen sodium, atazanavir, atlizumab, atomoxetine hydrochloride; B7-1 vaccine, bevacizumab, biricodar dicitrate, BMS-188667, brasofensine sulfate, bryostatin 1; Cantuzumab mertansine, CHS-828, cinacalcet hydrochloride, cipamfylline, creatine, CVT-3146; Darbepoetin alfa, DITPA, drotrecogin alfa (activated), duloxetine hydrochloride; Edatrexate, efalizumab, ENMD-0997, epoetin, erlosamide, esomeprazole magnesium, etiprednol dicloacetate, etoricoxib, everolimus, ezetimibe; Fampridine, fenretinide, FTY-720; IGF-I/IGFBP-3 IL-1 cytokine trap, ilodecakin, interferon beta, ISIS-104838, ISIS-2503, ISIS-5132, ivabradine hydrochloride; Lafutidine, lanthanum carbonate, L-Arginine hydrochloride, LEA29Y, lerdelimumab, levetiracetam, levobupivacaine hydrochloride, levosimendan, lopinavir; Melagatran, mibefradil hydrochloride, miglustat, morphine-6-glucuronide; Nesiritide; Omalizumab, omapatrilat; p24-VLP, parecoxib sodium, peginterferon alfa-2a, peginterferon alfa-2b, pegsunercept, pitavastatin calcium, plevitrexed, prasterone, pregabalin,

PRO-2000, prucalopride; Rapacuronium bromide, rebimastat, RGA-0853, rubitecan, ruboxistaurin mesilate hydrate, RWJ-67657; S-16020-2, sarizotan, SLV-306, stiripentol; TA-CIN, tenecteplase, teriparatide, tezacitabine, tipifarnib, trabectedin, troglitazone; Valdecoxib, vardenafil; Z-338, ziconotide. .COPYRGT. 2003 Prous Science. All rights reserved.

L4 ANSWER 22 OF 27 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2003219382 EMBASE

TITLE: Pulmonary arterial hypertension - The primary

pulmonary hypertension syndromes.

AUTHOR: Hey, Jamie C., Dr. (correspondence)

CORPORATE SOURCE: Div. of Pulmonary and Critical Care, University of

Maryland, Baltimore, MSTF, 10 S. Pine Street, Baltimore, MD

21201, United States. jhey@medicine.umaryland.edu

AUTHOR: Scharf, Steven M.

CORPORATE SOURCE: Div. of Pulmonary and Critical Care, University of

Maryland, Baltimore, 10 S. Pine Street, Baltimore, MD

21201, United States.

SOURCE: Israel Medical Association Journal, (1 Apr 2003) Vol. 5,

No. 4, pp. 298-303.

Refs: 40

ISSN: 1565-1088 CODEN: IMAJCX

COUNTRY: Israel

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 052 Toxicology

005 General Pathology and Pathological Anatomy

039 Pharmacy

038 Adverse Reactions Titles 037 Drug Literature Index

030 Clinical and Experimental Pharmacology

O18 Cardiovascular Diseases and Cardiovascular Surgery O17 Public Health, Social Medicine and Epidemiology O15 Chest Diseases, Thoracic Surgery and Tuberculosis

LANGUAGE: English

ENTRY DATE: Entered STN: 12 Jun 2003

Last Updated on STN: 12 Jun 2003

L4 ANSWER 23 OF 27 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights

reserved on STN

ACCESSION NUMBER: 2003138629 EMBASE TITLE: Pulmonary hypertension.

AUTHOR: Nicod, Laurent P., Dr. (correspondence)

CORPORATE SOURCE: Pulmonary Division, University Hospital, Geneva 24, rue

Micheli-du-Crest, CH-1211 Geneva 14, Switzerland.

laurent.nicod@hcuge.ch

SOURCE: Swiss Medical Weekly, (22 Feb 2003) Vol. 133, No. 7-8, pp.

103-110. Refs: 23

ISSN: 1424-7860 CODEN: SMWWAI

COUNTRY: Switzerland

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis

018 Cardiovascular Diseases and Cardiovascular Surgery

037 Drug Literature Index

OO5 General Pathology and Pathological Anatomy

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 17 Apr 2003

Last Updated on STN: 17 Apr 2003

AB Pulmonary arterial hypertension (PAH) must be classified into

primary pulmonary hypertension and PAH related to other diseases such as collagen vascular diseases, HIV infection or portal hypertension. PAH must also be differentiated from other entities, in particular pulmonary hypertension secondary to thromboembolic diseases, requiring specific approaches. All PAH results in similar histological remodelling of pulmonary arteries, with thickening of the intima, proliferation of the media and plexogenic lesions. Today the physiopathology of these lesions is much better understood and has resulted in new therapies involving substances such as prostacyclins, endothelin receptor antagonists or phosphodiesterase inhibitors, aimed not only at dilating arteries but also at preventing their remodelling. Thromboendarterectomy, septostomy and transplantation remain the only option where medical treatment has failed.

L4 ANSWER 24 OF 27 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2003098686 EMBASE

TITLE: Portopulmonary hypertension: A tale of

two circulations.

AUTHOR: Budhiraja, Rohit; Hassoun, Paul M., Dr. (correspondence)
CORPORATE SOURCE: Department of Medicine, Tufts-New England Medical Center,

Tufts University School of Medicine, Boston, MA, United

States.

AUTHOR: Hassoun, Paul M., Dr. (correspondence)

CORPORATE SOURCE: Department of Medicine, Johns Hopkins Univ. Sch. of

Medicine, Div. of Pulmonary and Critical Care, 5501 Hopkins

Bayview Circle, Baltimore, MD 21224, United States.

SOURCE: Chest, (1 Feb 2003) Vol. 123, No. 2, pp. 562-576.

Refs: 208

ISSN: 0012-3692 CODEN: CHETBF

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis

037 Drug Literature Index 038 Adverse Reactions Titles

048 Gastroenterology

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 25 Mar 2003

Last Updated on STN: 25 Mar 2003

AB Pulmonary involvement is common in patients with portal hypertension and can manifest in diverse manners. Changes in pulmonary arterial resistance, manifesting either as the hepatopulmonary syndrome or portopulmonary hypertension (PPHTN), have been increasingly recognized in these patients in recent years. This review summarizes the clinicopathologic features, diagnostic criteria, as well as the latest concepts in the pathogenesis and management of PPHTN, which is defined as an elevated pulmonary artery pressure in the setting of an increased pulmonary vascular resistance and a normal wedge pressure in a patient with portal hypertension

L4 ANSWER 25 OF 27 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2003037205 EMBASE

TITLE: Nitric oxide in liver transplantation: Pathobiology and

clinical implications.

AUTHOR: Shah, Vijay, Dr. (correspondence); Kamath, Patrick S. CORPORATE SOURCE: GI Research Unit, Advanced Liver Disease Study Group,

Department of Medicine, 200 First St. SW, Rochester, MN $\,$

55905, United States. shah.vijay@mayo.edu

AUTHOR: Shah, Vijay, Dr. (correspondence)

CORPORATE SOURCE: GI Research Unit, Mayo Clinic, Advanced Liver Disease Study

Group, 200 First St. SW, Rochester, MN 55905, United States

. shah.vijay@mayo.edu

SOURCE: Liver Transplantation, (1 Jan 2003) Vol. 9, No. 1, pp.

1-11. Refs: 114

ISSN: 1527-6465 CODEN: LITRFO

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 026 Immunology, Serology and Transplantation 030 Clinical and Experimental Pharmacology

037 Drug Literature Index

048 Gastroenterology

LANGUAGE: English SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 30 Jan 2003

Last Updated on STN: 30 Jan 2003

AB The gaseous molecule nitric oxide is involved in a variety of liver transplant-relevant processes, including ischemia-reperfusion injury, acute cellular rejection, and circulatory changes characteristic of advanced liver disease. This review article focuses on new advances relating to the role of nitric oxide in these syndromes with an emphasis

on pathobiology and potential clinical implications.

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reserved on STN

ACCESSION NUMBER: 2002440718 EMBASE

TITLE: Pulmonary hypertension in the young.
AUTHOR: Haworth, Sheila G., Prof. (correspondence)

CORPORATE SOURCE: Institute of Child Health, 30 Guilford Street, London WC1N

1EH, United Kingdom. S.Haworth@ich.ucl.ac.uk

SOURCE: Heart, (Dec 2002) Vol. 88, No. 6, pp. 658-664.

Refs: 21

ISSN: 1355-6037 CODEN: HEARFR

COUNTRY: United Kingdom DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis

018 Cardiovascular Diseases and Cardiovascular Surgery

037 Drug Literature Index038 Adverse Reactions Titles

007 Pediatrics and Pediatric Surgery

LANGUAGE: English

ENTRY DATE: Entered STN: 19 Dec 2002

Last Updated on STN: 19 Dec 2002

L4 ANSWER 27 OF 27 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights

reserved on STN

ACCESSION NUMBER: 2002253305 EMBASE

TITLE: Sildenafil (Viagra) is a risk factor for acute

variceal bleeding [6].

AUTHOR: Tzathas, Charalabos, Dr. (correspondence)

CORPORATE SOURCE: 1st Gastroenterology Department, Evangelismos Hospital,

Athens, Greece.

AUTHOR: Ladas, Spiros D

CORPORATE SOURCE: Gastroenterology Unit, 2nd Department of Internal Medicine,

Evangelismos Hospital, Athens, Greece.

AUTHOR: Ladas, Spiros D

CORPORATE SOURCE: Athens University, Athens, Greece.

AUTHOR: Tzathas, Charalabos, Dr. (correspondence)
CORPORATE SOURCE: 32 Xanthippou Street, 155 61 Athens, Greece.

AUTHOR: Christidou, Ageliki

SOURCE: American Journal of Gastroenterology, (2002) Vol. 97, No.

7, pp. 1856.

Refs: 5

ISSN: 0002-9270 CODEN: AJGAAR

COUNTRY: United States DOCUMENT TYPE: Journal; Letter

FILE SEGMENT: 030 Clinical and Experimental Pharmacology

037 Drug Literature Index 038 Adverse Reactions Titles

048 Gastroenterology

LANGUAGE: English

ENTRY DATE: Entered STN: 15 Aug 2002

Last Updated on STN: 15 Aug 2002

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=> s kreisel w?/au

L5 275 KREISEL W?/AU

=> s 15 not py>2004

L6 233 L5 NOT PY>2004

=> dup rem 17

SOURCE:

PROCESSING COMPLETED FOR L7

L8 7 DUP REM L7 (7 DUPLICATES REMOVED)

=> d 18 ibib abs 1-7

L8 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2003:715560 CAPLUS

DOCUMENT NUMBER: 139:285682

TITLE: High variation of tioquanine absorption in patients

with chronic active Crohn's disease

AUTHOR(S): Deibert, P.; Dilger, K.; Fischer, C.; Hofmann, U.;

Nauck, S.; Stoelben, S.; Kreisel, W.

CORPORATE SOURCE: Department for Preventive and Rehabilitative Sports

Medicine, University Hospital, Freiburg, Germany Alimentary Pharmacology and Therapeutics (2003),

18(2), 183-189

CODEN: APTHEN; ISSN: 0269-2813

PUBLISHER: Blackwell Publishing Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

Tioquanine (thioquanine) has been suggested as a therapeutic alternative AB for patients with Crohn's disease resistant or intolerant to azathioprine or mercaptopurine. However, pharmacokinetic data on tioguanine in inflammatory bowel disease are missing. The aim of this study was to determine the disposition of three different 40 mg tablet prepns. of tioquanine in patients with Crohn's disease. Six patients with chronic active Crohn's disease were included in a randomized, cross-over, single-dose study. Pharmacokinetic anal. was based on plasma concns. of tioquanine during 6 h after dosing. Tioguanine was measured by a validated highpressure liquid chromatog. method. The areas under the curve (AUC) varied 4-7-fold between patients. In two patients, tioguanine was not detected in plasma following the intake of one of the three tablets; another patient did not absorb tioguanine in two of the three different prepns. No significant differences were found in the AUC and Cmax values between the three tablets. In all patients, there was a second peak in plasma concentration following a meal 3 h after drug administration. absorption of tioguanine is highly variable in patients with Crohn's

disease, which may be responsible for treatment failure. Therapy with tioguanine may be improved by monitoring tioguanine nucleotides as a surrogate parameter of efficacy.

OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD

(6 CITINGS)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 7 MEDLINE on STN DUPLICATE 2

ACCESSION NUMBER: 2001497958 MEDLINE DOCUMENT NUMBER: PubMed ID: 11546958

TITLE: Sildenafil in HIV-related pulmonary hypertension. AUTHOR: Schumacher Y O; Zdebik A; Huonker M; Kreisel W

SOURCE: AIDS (London, England), (2001 Sep 7) Vol. 15, No. 13, pp.

1747-8.

Journal code: 8710219. ISSN: 0269-9370.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: (CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals; AIDS

ENTRY MONTH: 200112

ENTRY DATE: Entered STN: 10 Sep 2001

Last Updated on STN: 22 Feb 2002

Entered Medline: 7 Dec 2001

L8 ANSWER 3 OF 7 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 2001:443463 BIOSIS DOCUMENT NUMBER: PREV200100443463

TITLE: Sildenafil in HIV-related pulmonary hypertension.

AUTHOR(S): Schumacher, Y. O. [Reprint author]; Zdebik, A.; Huonker, M.

[Reprint author]; Kreisel, W. [Reprint author]

CORPORATE SOURCE: Abt. Rehabilitation, Praevention und Sportmedizin,

Medizinische Universitaetsklinik-Freiburg, Freiburg,

Germany

SOURCE: Infection, (May, 2001) Vol. 29, No. Supplement 1, pp. 73.

print.

Meeting Info.: European Conference on Infectious Diseases and Tropical Medicine. Leipzig, Germany. May 03-06, 2001.

CODEN: IFTNAL. ISSN: 0300-8126.

DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 19 Sep 2001

Last Updated on STN: 22 Feb 2002

L8 ANSWER 4 OF 7 MEDLINE on STN DUPLICATE 3

ACCESSION NUMBER: 1991112194 MEDLINE DOCUMENT NUMBER: PubMed ID: 2275255

TITLE: [Non-cirrhotic portal hypertension].

Die nicht-zirrhotisch bedingte portale Hypertonie.

AUTHOR: Kreisel W; Walter E; Gerok W

CORPORATE SOURCE: Abteilung Medizin II Gastroenterologie, Hepatologie,

Medizinische Universitatsklinik Freiburg.

SOURCE: Zeitschrift fur Gastroenterologie, (1990 Oct) Vol. 28, No.

10, pp. 578-83. Ref: 54

Journal code: 0033370. ISSN: 0044-2771. GERMANY: Germany, Federal Republic of

DOCUMENT TYPE: (ENGLISH ABSTRACT)

Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: German

PUB. COUNTRY:

Priority Journals FILE SEGMENT:

ENTRY MONTH: 199102

ENTRY DATE: Entered STN: 29 Mar 1991

> Last Updated on STN: 29 Mar 1991 Entered Medline: 28 Feb 1991

A chronic increase of the portal venous pressure is AΒ

not only a sequel of liver cirrhosis. There is a large group of different

diseases leading to "non-cirrhotic portal hypertension

". Clinical presentation, diagnosis and treatment are discussed.

discrimination between cirrhotic and non-cirrhotic portal

hypertension is important for the understanding of differences in

clinical signs and course of the diseases, however.

ANSWER 5 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1977:157472 CAPLUS

DOCUMENT NUMBER: 86:157472

ORIGINAL REFERENCE NO.: 86:24739a,24742a

A modified Knudsen manometer - an apparatus for the TITLE:

measurement of low gas pressures and the

determination of thermal accommodation coefficients

AUTHOR(S): Kreisel, W.

CORPORATE SOURCE: Inst. Phys. Chem., Univ. Heidelberg, Heidelberg, Fed.

Rep. Ger.

SOURCE: Vacuum (1976), 26(8), 339-47

CODEN: VACUAV; ISSN: 0042-207X

DOCUMENT TYPE: Journal Enalish LANGUAGE:

An instrument is described for measuring pressures 10-3-10-7torr up to 350°C and is relatively insensitive to mech. vibrations. The principle of the measuring method is based on an electromagnetic self-adjusting compensation of the radiometric force effected by a definite but non-uniform distribution of temperature in a rarefied gas. equation for the radiometric force is given, which is valid for any temperature ratios and arbitrary accommodation coeffs. This equation can be used to calculate coeffs. of the gases from the exptl. results. The device can also be used as an absolute manometer. Comparative measurements are carried out with a calibrated ionisation gauge, and with a McLeod gauge. He, Ar, Kr, N2, and CO2 were used as measuring gases.

ANSWER 6 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1975:504645 CAPLUS

DOCUMENT NUMBER: 83:104645

ORIGINAL REFERENCE NO.: 83:16347a, 16350a

TITLE: Unexplained minimum in pressure dependent

PAC [perturbed angular correlation]

Berek, U.; Kreisel, W.; Schneider, H.; AUTHOR(S):

Tierno, E.

Strahlenzent., Justus Liebig-Univ., Giessen, Fed. Rep. CORPORATE SOURCE:

SOURCE: Physics Letters A (1975), 53A(3), 251-3

CODEN: PYLAAG; ISSN: 0375-9601

DOCUMENT TYPE: Journal LANGUAGE: English

Data are presented on the pressure (1 torr to 78 atm) dependence of the angular correlation coeffs. A2G2 and A4G4 for the 172-203 and 145-58 keV γ -ray cascades in 127I [7553-56-2] following the decay of 127Xe [13994-19-9]. For both cascades an isotropic angular correlation was observed at low-to-medium pressures.

ANSWER 7 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1974:456780 CAPLUS

DOCUMENT NUMBER: 81:56780 ORIGINAL REFERENCE NO.: 81:9009a,9012a

TITLE: Measurement of pressure dependent perturbed

angular correlations in gaseous sources of xenon-127

AUTHOR(S): Berek, U.; Kreisel, W.; Schneider, H.;

Tierno, E.

CORPORATE SOURCE: Strahlenzent., Justus Liebig-Univ. Giessen, Giessen,

Fed. Rep. Ger.

SOURCE: Physics Letters A (1974), 48(2), 79-80

CODEN: PYLAAG; ISSN: 0375-9601

DOCUMENT TYPE: Journal LANGUAGE: English

AB The 172-203 keV angular correlation in 127I was measured as a function of

the pressure in the 127Xe gaseous sources. The attenuation of the anisotropy coeffs. A22 and A44 is given for the pressure

range of 61 \pm 4 to 2510 \pm 150 torr. The results do not agree with

those previously reported.

=> s 17 and ?afil

L9 4 L7 AND ?AFIL

=> d 19 ibib abs 1-4

L9 ANSWER 1 OF 4 MEDLINE on STN ACCESSION NUMBER: 2001497958 MEDLINE DOCUMENT NUMBER: PubMed ID: 11546958

TITLE: Sildenafil in HIV-related pulmonary

hypertension.

AUTHOR: Schumacher Y O; Zdebik A; Huonker M; Kreisel W

SOURCE: AIDS (London, England), (2001 Sep 7) Vol. 15, No. 13, pp.

1747-8.

Journal code: 8710219. ISSN: 0269-9370.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: (CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals; AIDS

ENTRY MONTH: 200112

ENTRY DATE: Entered STN: 10 Sep 2001

Last Updated on STN: 22 Feb 2002

Entered Medline: 7 Dec 2001

L9 ANSWER 2 OF 4 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 2001:506152 BIOSIS DOCUMENT NUMBER: PREV200100506152

TITLE: Sildenafil in HIV-related pulmonary

hypertension.

AUTHOR(S): Schumacher, Yorck O. [Reprint author]; Zdebik, Anselm;

Huonker, Martin [Reprint author]; Kreisel, Wolfgang

CORPORATE SOURCE: Department of Prevention, Rehabilitation and Sports

Medicine, University of Freiburg, Freiburg, Germany

SOURCE: AIDS (Hagerstown), (7 September, 2001) Vol. 15, No. 13, pp.

1747-1748. print.

CODEN: AIDSET. ISSN: 0269-9370.

DOCUMENT TYPE: Letter LANGUAGE: English

ENTRY DATE: Entered STN: 31 Oct 2001

Last Updated on STN: 23 Feb 2002

L9 ANSWER 3 OF 4 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 2001:443463 BIOSIS DOCUMENT NUMBER: PREV200100443463

TITLE: Sildenafil in HIV-related pulmonary

hypertension.

AUTHOR(S): Schumacher, Y. O. [Reprint author]; Zdebik, A.; Huonker, M.

[Reprint author]; Kreisel, W. [Reprint author]

CORPORATE SOURCE: Abt. Rehabilitation, Praevention und Sportmedizin,

Medizinische Universitaetsklinik-Freiburg, Freiburg,

Germany

SOURCE: Infection, (May, 2001) Vol. 29, No. Supplement 1, pp. 73.

print.

Meeting Info.: European Conference on Infectious Diseases and Tropical Medicine. Leipzig, Germany. May 03-06, 2001.

CODEN: IFTNAL. ISSN: 0300-8126.

DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 19 Sep 2001

Last Updated on STN: 22 Feb 2002

L9 ANSWER 4 OF 4 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights

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ACCESSION NUMBER: 2001348249 EMBASE

TITLE: Sildenafil in HIV-related pulmonary hypertensin

[31.

AUTHOR: Schumacher, Y.O. (correspondence); Zdebik, A.; Huonker, M.;

Kreisel, W.

CORPORATE SOURCE: Department of Prevention, Rehabilitation and Sports

Medicine, University of Freiburg, Freiburg, Germany.

SOURCE: AIDS, (7 Sep 2001) Vol. 15, No. 13, pp. 1747-1748.

Refs: 5

ISSN: 0269-9370 CODEN: AIDSET

COUNTRY: United Kingdom DOCUMENT TYPE: Journal; Letter

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis

026 Immunology, Serology and Transplantation

037 Drug Literature Index 038 Adverse Reactions Titles

006 Internal Medicine

LANGUAGE: English

ENTRY DATE: Entered STN: 18 Oct 2001

Last Updated on STN: 18 Oct 2001